South Carolina Strategic Corridor System Plan

I. Introduction

In order to maximize limited resources, maintain the State's position in the global marketplace and efficiently move both people and goods, a strategic system of corridors forming the backbone of the state's transportation system has been identified. This system provides a connected, continuous network that serves both the traveling public and facilitates the movement of freight. This strategic system provides the needed connectivity that will allow South Carolina to maintain and enhance its economic vitality.

The integration of different modes in the overall plan is a critical element in maintaining and enhancing the efficiency of the overall transportation system in the State. The development of the corridor plan is based on the identification of a variety of modal strategies, including opportunities for express bus, traditional fixed route transit in urban areas, rail, and bicycle and pedestrian. Other critical elements in the development of the strategic corridor system included the identification of facilities that could function as Interstate relievers, the identification of corridors that could facilitate modal shifts, and the identification of corridors that will facilitate the efficient movement of freight and goods.

Policies were identified to guide the development of the strategic network. These policies were developed in coordination with, and in support of, the overall goals and objectives of the SCDOT and focus on the primary elements of safety, system maintenance and preservation, and maximization of resources. As mentioned above, the recognition of the need for Interstate relievers, modal shift opportunities, and alternative transportation solutions were included.

Goals and Guiding Principles of the Strategic System

The first step in the policy development process was the identification of the goals of the strategic statewide plan and the definition of what the system is designed to accomplish. The identification of what the system is designed to accomplish was critical in the further development of implementation processes, procedures, corridor identification and ultimately the development of a prioritized cost feasible plan and short range work program.

The goals identified, and shown below, were coordinated and consistent with the overall strategic goals of SCDOT and were developed in conjunction with SCDOT management, staff and transportation partners and stakeholders.

GOALS OF THE STRATEGIC CORRIDOR NETWORK

Provide efficient connections between primary economic centers both within and outside of the state.

Enhance South Carolina's economic vitality and economic competitiveness through the provision of an interconnected, intermodal network for the movement of freight and goods.

Provide for a safe, secure and efficient transportation system.

Protect and enhance the natural, historical and cultural resources in the state.

In addition to the goals, the guiding principles for development of the Strategic Corridor System were also identified. These guiding principles, shown below, focus on key elements of the planning process.

GUIDING PRINCIPALS OF THE STRATEGIC CORRIDOR NETWORK

1. **Coordination**
    a. Coordinate with regulatory and resource agencies
    b. Coordinate with existing plans, goals and transportation resources
    c. Coordinate with local and regional organizations and plans
    d. Coordinate with state economic goals
    e. Inclusive of public and partner involvement and input, including traditional and non-traditional groups
2. **Economy**
    a. Identify the state's most critical economic generators and their transportation needs
    b. Meet industry transportation requirements
    c. Enhance national and international competitiveness
3. **System Scope and Performance**
    a. Multimodal and intermodal
    b. Inclusive of strategic connectors
    c. Serves all areas of the state, both rural and urban
    d. Improves reliability, mobility, safety and security for passengers, including motorized and non-motorized users, and freight
    e. Optimize available capacity
    f. Preservation of existing resources
4. **Quality of Life**
    a. Protect and enhance environmental, historical and cultural resources
    b. Provide viable modal alternatives
    c. Protect and enhance community "sense of place"
    d. Maximize economic opportunities for South Carolina residents

II. Network Development

The strategic network was developed within the framework of the identified goals and guiding principles. There were other considerations included in the development of the strategic network. These additional planning considerations, developed cooperatively by local planning staff, SCDOT staff, and other transportation partners who participated in a workshop, included the following:

- The connection of major activity centers
- Focus on the connectivity, rather than on route numbers
- Freight and goods mobility
- Intermodal connections and opportunities
- Opportunities for modal shifts

The specific criteria and development process for the strategic network was defined to meet the goals, guiding principles and to ensure inclusion of these additional considerations. The State's primary system was evaluated using the following criteria, which incorporated the goals, principles and planning considerations.

Criteria 1: Traffic

Traffic data was utilized in several formats. Annual Average Daily Traffic (AADT) and Volume/Capacity (V/C) ratio were identified as measures of congestion. Facilities considered for inclusion in the strategic network included those that met the following thresholds:

- ✓ AADT
  - o =/> 5,000 – Rural
  - o =/> 9,000 – Urban
- ✓ V/C
  - o =/> 0.75 – Rural
  - o =/> 1.00 – Urban

Criteria 2: Truck Traffic

Truck traffic is an important element in the development of the network. Based on available data from SCDOT, the average truck percentage on primary routes is 8%. Routes that carried at or above 8% truck traffic were considered for the network. In addition, any facility that carried at or greater than 1,000 Average Annual Daily Traffic – Trucks (AADTT) were also included for consideration.

Criteria 3: Safety

Safety is a primary concern and was included in the criteria for the development of the network. Crash data is normalized by developing an average crash rate per million vehicle miles of travel. This process is utilized by FHWA, as well as the vast majority of state DOTs. The available crash data was obtained and an average crash rate per million vehicle miles of travel was calculated and used in the network development process.

Criteria 4: Economic and Trade Routes

Economic and trade routes were identified based on several factors. These factors included a minimum AADTT of 5%; connections to economic centers, defined as the top agricultural counties by value and the top manufacturing counties by value. In addition, routes that connected counties with census identified urban areas were also included for consideration.

Criteria 5: Emergency/Disaster Evacuation

Designated evacuation routes were included for consideration. In addition, any routes contained within the 50-mile Emergency Planning Zones for nuclear sites and hurricane evacuation were also included.

Criteria 6: Tourism

The use of average annual traffic volumes tends to hide the true level of activity in South Carolina's tourism zones. This measure relates the number of visitors to these tourism zones with actual traffic volumes within them. If the increase in traffic volume during the peak visitor months exceeded the statewide average, the routes within this zone met this criterion. The visitor count from the highest three months over a three year period was used in each of the zones.

Corridor Identification

Each criteria threshold that was met was given one point, with a possible total of nine points. The criteria included in the identification are shown in Table 1.

Table 1. Corridor Criteria

Criteria	Quantifier	Points
Traffic Volume	Average Annual Daily Traffic (AADT) Volume to Capacity Ratio (V/C)	1 1
Truck Traffic	Truck Percentage Average Annual Daily Truck Traffic	1 1
Safety	Crash Rate per Million Vehicle Miles of Fatality Rate per Million Vehicle Miles of	1 1
Economic or Trade		1
Emergency Evacuation		1
Seasonal Peak (Tourism)		1
TOTAL POINTS POSSIBLE		**9**

Tests were run on all of the highways in the State, using different point totals as threshold values for inclusion in the strategic network. Total scores of three, four and five points were tested, and the scenario chosen that best met the identified goals and provided the desired connectivity was the scenario where routes included on the network received a cumulative score of at or above 4. The scenario based on three points did not identify enough facilities to form a connected network. The scenario based on five points resulted in the identification of too many facilities to be considered a strategic system.

The identified corridors were cross checked to ensure connectivity between major economic centers and to ensure statewide coverage. These corridors were chosen without regard to route number. Because these corridors often include more than one route number, each corridor was named. The identified corridors that comprise the strategic network included:

STATEWIDE STRATEGIC CORRIDORS	
Atlantic Coast Corridor	*Olde English – Old 96 Corridor*
Best Friend of Charleston Corridor	*Pee Dee Corridor*
Low Country – York Corridor	*Sandhills – Santee Cooper Corridor*
Mid-Carolina Corridor	*Trans-Carolina Corridor*
Mountains to the Sea Corridor	*Upstate Corridor*

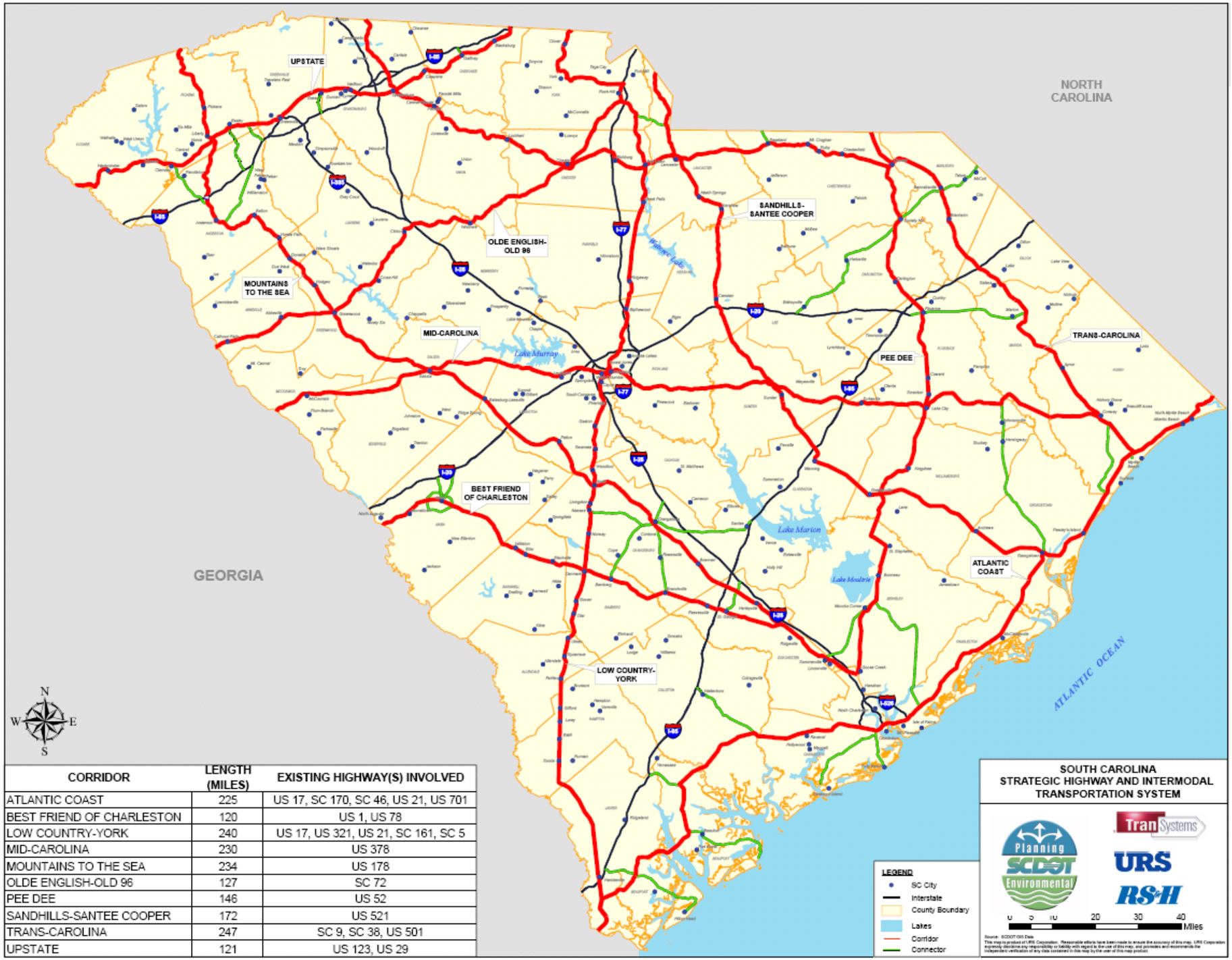
Connector Identification

Connectors to the Strategic Corridor Network serve a variety of purposes, which include:

- Connectivity to an Interstate, in order that the corridor may serve as a reliever.
- Connectivity to a port or intermodal hub.
- Connectivity to coastal areas to serve as an emergency evacuation route.

Discussion on each connector is included with the Strategic Corridor to which it connects. A map depicting the ten (10) corridors and the connectors comprising the strategic network is shown in Figure 1.

Figure 1. Strategic Corridor Network



CORRIDOR	LENGTH (MILES)	EXISTING HIGHWAY(S) INVOLVED
ATLANTIC COAST	225	US 17, SC 170, SC 46, US 21, US 701
BEST FRIEND OF CHARLESTON	120	US 1, US 78
LOW COUNTRY-YORK	240	US 17, US 321, US 21, SC 161, SC 5
MID-CAROLINA	230	US 378
MOUNTAINS TO THE SEA	234	US 178
OLDE ENGLISH-OLD 96	127	SC 72
PEE DEE	146	US 52
SANDHILLS-SANTEE COOPER	172	US 521
TRANS-CAROLINA	247	SC 9, SC 38, US 501
UPSTATE	121	US 123, US 29

III. Needs Plan Development

The next step in the planning process focused on the development of a needs plan for the strategic system. The development of this needs plan comes from the detailed analysis of each corridor, the identification of minimum standards for the strategic network and the identification of deficiencies based on these minimum standards. These standards include:

- *Number of lanes*
  - Maximum of 6 lanes
  - 2 to 4 lanes acceptable if other criteria is met

- *Level of Service*
  - Rural: LOS C
  - Urban: LOS D

- *Access Management*
  - Rural Median Opening Spacing
    - Desired: ½ mile
    - Acceptable: ¼ mile
  - Urban Median Opening Spacing
    - Desired: ¼ mile
    - Acceptable: 500 feet

- Safety
  - System average: Crash rate per million vehicle miles of travel

- Application of context sensitive design solutions
  - Preserve/enhance community character

- Inclusion of bicycle and pedestrian facilities where feasible and appropriate

- Inclusion of transit opportunities and coordination

- Inclusion of strategies to address efficient freight movement and bottlenecks

- Coordination with local plans and policies

IV. Corridor Action Plans

The Corridor Action Plans provide the foundation for the development of the Needs Plan. These Action Plans are divided into several elements, which include the following:

- Data
- Screening Assessment
- Project Development

A. Data Element

The compilation of detailed information regarding the corridors and their connectors is a critical element of the planning process. This element focused on the collection of physical facility information; traffic; truck traffic; safety; and intrinsic resources, including environmental, historical and cultural data; and the review of any existing plans, including the local Long Range Transportation Plans.

For ease of analysis, each corridor was divided into segments. Each of the segments was identified based on the number of lanes and on overall length of the segment. Those segments not identified by a lane change were broken at an intersection with another major facility or at county lines. The attempt was also made to keep segments at a manageable length for ease of analysis and mapping purposes.

The analysis focused on the identification of existing conditions and the projection of future conditions within each corridor. This analysis was used to identify any issues that currently exist, as well as those that may occur by the horizon planning year 2030. The analyses focused on congestion, captured through Level of Service (LOS), and safety, captured through the crash rate. Issues were identified based on the established thresholds.

B. Screening Assessment

The screening assessment for the corridor plans consisted of three sub-elements, which included a high level screening of any potential impacts on the environment, including wetlands and rare and endangered species, cultural and historical resources, and environmental justice communities. The second sub-element focused on an analysis of freight, freight movement and constraints, and the third sub-element focused on the potential for transit within the corridor.

1. Environmental Screening

These screens identified the presence of any sensitive resources that may be impacted by potential projects. This screening process provides information in the beginning of the planning process about potential adverse impacts on the resources found within the corridor. In addition, existing plans were reviewed to identify any existing projects on, or that may impact, the facility.

Potential mitigation strategies have also been identified to address impacts any proposed project may have on the environmental, historical, or cultural resources, and on environmental justice communities.

There are a wide variety of mitigation activities that may be employed to address adverse impacts associated with transportation projects. Environmental mitigation activities are strategies, policies, and programs that serve to minimize or compensate for the disruption of elements of the human and natural environment associated with the implementation of transportation projects. The potential strategies listed below are not intended to be all inclusive, but do provide examples of available mitigation activities.

1. 1. Stream and Wetland Mitigation

Wetlands are areas where the water table stands near, at, or above the land surface for at least part of the year and are described according to the degree of wetness and the type of vegetation that the site supports. Wetlands are important elements of a watershed because they serve as the link between land and water resources. Wetlands help curb flooding by slowing down the flow of excess rainwater and absorbing it. Wetlands also cleanse water as it filters back into the water table, and provide natural habitats for a number of plant and animal species.

Mitigation opportunities may include mitigation banking, stream and wetland creation, restoration, and/or preservation. Wetland mitigation banking is a process that helps limit negative impacts to wetland resources. Banking can be used when wetlands affected by development cannot be preserved or preservation would not be environmentally beneficial and typically involves the consolidation of small, fragmented wetland mitigation projects into one large contiguous site.

1.2. Noise Mitigation

For noise mitigation, freeway or major roadway projects that add lanes or replace the pavement (such as from asphalt to concrete) should include an investigation of the noise levels. The possibility of mitigation with noise walls or other buffers may be necessary.

The level of highway traffic noise depends on three conditions: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of

traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater numbers of trucks.

Potential noise reduction measures include creating buffer zones, planting vegetation, and constructing barriers. Buffer zones are undeveloped open spaces, which border a highway. Vegetation barriers are vegetation planted along the highway that are dense enough that they cannot be seen over or through. Noise barriers are solid obstructions built between the highway/major roadway and adjacent land use.

1.3. Storm Water Mitigation

Stormwater runoff occurs when precipitation flows over the ground rather than settling into the ground. Impervious surfaces, such as asphalt and concrete, prevent stormwater runoff from naturally soaking into the ground.

Storm water can pick up debris, chemicals, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, or wetland, polluting water bodies and also causing them to overflow and flood.

There are multiple mitigation techniques that can be used to curb storm water runoff. These techniques can include bioretention, detention ponds, grass swales, and filter strips. Grass swales are grasses that line a ditch or channel near impervious surfaces that capture stormwater runoff and filter it into the ground.

Vegetative filter strips and buffers are areas of land with vegetative cover that are designed to accept storm water runoff from upstream development. They can be constructed, or existing vegetated buffer areas can be used. Dense vegetative cover facilitates water filtering into the ground. Unlike grass swales, vegetative filter strips are effective only for areas with no defined channels.

Bioretention is a practice that manages and treats storm water runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression. The method combines physical filtering and adsorption with biological processes to retain and treat surface runoff before it leaves a site.

Detention ponds are used to capture large amounts of water and slowly filter it back into the ground. Detention ponds are usually used in large residential or commercial developments.

1.4. Historic Resource Mitigation

Historic and cultural resource reviews during the project development phase are designed to comply with the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and applicable state codes and regulations. These laws and regulations require that cultural resources be considered during the development of transportation projects. An element of that consideration involves consulting with various entities including the Federal

Highway Administration (FHWA), Advisory Council on Historic Preservation, (ACHP), State Historic Preservation Office (SHPO), local historic preservation groups, local public officials, and the public.

A plan for mitigating an adverse effect is site/property specific and requires a separate research design or approach for each historic property impacted by projects. It should be based on the context development and refinement through the environmental assessment and preliminary project design/engineering.

Mitigation plans should be developed in consultation with the State Department of Transportation, State Historic Preservation Office, Federal Highway Administration, local public officials, local historic preservation groups, and the public, as applicable.

1.5. Environmental Justice Mitigation

There are three fundamental principles of environmental justice. These principles include the avoidance of unusually high, adverse health, social and economic impacts on minority and low-income populations; the inclusion of all potentially affected communities in the decision making process; and to prevent the denial of benefits by minority and low income communities and populations.

Adverse affects of projects on environmental justice communities can be mitigated in a variety of ways, including the utilization of advanced analytical capabilities to ensure compliance; the early identification of impacts on low income and minority populations and to ensure the fair distribution of both the burdens and the benefits associated with transportation investments; and to have an inclusive and active public participation process that does not provide barriers to participation by minority and low income populations in the decision making process.

2. *Freight Screening*

Freight movement is critical to the State's economy and also plays an important role in the recruitment and retention of industry to the State. It is estimated that trucks move approximately 80 percent of the total freight tonnage and 90 percent of the South Carolina's total freight value. While travel time is an important element for all users, it is a critical element in the movement of freight, especially with the significant move towards just-in-time delivery.

Port related freight is a significant issue statewide. The port in Charleston is one of the largest container ports on the Eastern Seaboard and the port of Georgetown is dedicated to bulk and break-bulk cargo. The majority of the cargo from these ports is moved on trucks for either the entire trip, or at some point in their delivery.

The cooperative effort underway between the states of Georgia and South Carolina to develop a port along the Savannah River in Jasper County will also have a significant impact on the highway system in the southern portion of the State. Planning for the impacts of this new port is a critical element in the development of the corridor plan.

The freight screening analysis focused on three basic metrics that have the greatest impact on the efficient movement of freight, which include overall congestion, the amount of truck traffic and operational constraints for trucks. The screening analysis utilized InfoUSA[1] data, which identified truck and intermodal facilities and their locations throughout the state. These facilities were mapped and then correlated to any identified congestion issues. In addition, updated truck traffic was obtained and identified for each specific segment.

The truck traffic was assessed with regard to the overall network congestion and with regard to the location of the facilities. Comparing the truck traffic to both the facilities and to the congestion levels, provided a clearer picture of freight movement and any issues and/or deficiencies with regard to freight were identified based on this screening analysis. Each of the corridors was also screened for operational issues and constraints, as well as associated land uses, other than the identified facilities that may generate high truck volumes.

3. Transit Screening

The final sub-element of the screening analysis focused on transit. As with freight, a high level analysis of land use and densities along each corridor was conducted. This high level analysis was conducted in coordination with the identified congestion levels and opportunities were identified for potential transit service.

Several corridors in each region were identified as having transit supportive characteristics. These corridors could have been selected for any number of reasons including but not limited to: projected traffic congestion; other traffic or development patterns; currently served by successful transit service poised for expansion or enhancement; and/or the implementation is included in regional long range transportation plans and has a defined transit-supportive commuting or land use pattern.

The Regional Transit Plans for each of the ten South Carolina planning regions contain recommendations for integrating or enhancing transit service within the strategic corridors contained in that region. Those recommendations are also summarized within each Corridor Action Plan. The specific screening criteria are listed below.

[1] http://usinfo.state.gov/infousa

3.1 Corridor –Transit Evaluation Criteria

a. Technology Compatible with Existing Development

The corridors being considered for transit options vary widely in regards to existing development and adjacent land uses. The attributes of the transit technology should be consistent with the existing characteristics of the corridor. This criterion is qualitative and ratings were determined by assigning the most reasonable score based on existing development characteristics and staff knowledge of the area.

Scoring Method:

Appropriate: +1

Somewhat Appropriate: 0

Not Appropriate: -1

b. Technology Compatible with Level of Service Needs

This criterion examines the future level of service needs for the corridor. The 2030 Average Daily Traffic (ADT) figures were utilized by assuming a ten percent transit mode split. Lower ADT scores in a corridor were assumed to indicate the need for lower capacity transit options, such as local bus, and higher scores indicating the need for higher capacity options, such as BRT or commuter rail. Note: Along highways with multiple segments, the highest ADT along that roadway was used.

Scoring Method:	
ADT less than 2000 then Local Bus Assigned Score: 1	***Other Modes: -1***
ADT 2000-5000 then Local, Enhanced & Express Bus Assigned Score: 1	***Other Modes: -1***
ADT greater than 5000 then BRT & Commuter Rail Assigned Score: 1	***Other Modes: -1***

c. Technology Compatible with Roadway Improvement Plans

This criterion evaluates the technology as compared against the Statewide Multimodal Transportation Plan. The technologies were assessed for various roadway improvement categories including capacity, Intelligent Transportation Systems (ITS), operations (e.g. signal timing), and access management. If the roadway type improvement has potential for promoting the technology, then the technology was considered compatible and assigned a rating of +1. It is important to note that the proposed roadway improvements were not considered to have potential to promote commuter rail. For this reason, commuter rail was assigned a score of 0 to represent its lack of compatibility to this criterion.

Scoring Method	**Roadway Improvement**			
Technology	**Capacity**	**ITS**	**Operations**	**Access Mgmt.**
Local Bus	**1**	**1**	**1**	**1**
Express Bus	**1**	**0**	**0**	**1**
Enhanced Bus	**0**	**1**	**1**	**0**
BRT	**1**	**0**	**0**	**0**
Commuter Rail	**0 or 1**	**0**	**0**	**0**

d. Railroad Right-of Way Adjacent to the Corridor

This criterion considers the advantage of existing exclusive rail right of way for Commuter Rail. For the technologies other than Commuter Rail, the score is 0.

Scoring Method:	
Compatible:	***+1***
Somewhat Compatible:	***0***
Not Compatible:	***-1***

e. Technology Compatible with Existing Plans

It is important for the candidate transit technology to be compatible with the existing local, regional, and statewide plans. For this criterion, the Long Range Transportation Plan was utilized, as well as mode specific plans from relevant transit authorities and Metropolitan Planning Organizations (MPOs).

Scoring Method:	
Available or Planned:	***+1***
Available or planned along a Portion of the Corridor:	***0***
Not Available:	***-1***

f. Roadway Parallel to the Corridor

This criterion considers the advantage of existing/ planned roadways parallel to the corridor.

Scoring Method:	
Available or planned roadway/HOV:	***+1***
Available or planned along a Portion of the Corridor:	***0***
Not Available or Planned:	***-1***

C. Project Development

The project development element of the Corridor Action Plans is the culmination of the data assessment and the screening analyses. This element included a close and more specific examination of identified issues, deficiencies and needs triggered by congestion, safety, and freight. The transit and environmental screening provided additional information with regard to the potential solutions identified to address the issues.

1. Identification of Issues: Congestion

The traffic and Level of Service analysis is one of the critical elements in the evaluation and identification of facility deficiencies. The methodology for this evaluation was designed to serve as a first screen in identifying any potential issues or deficiencies.

In order to forecast future traffic, the existing conditions were identified. These conditions were based on the latest available 2005 system-wide traffic data. In addition to the latest data, historical data was also gathered which formed the

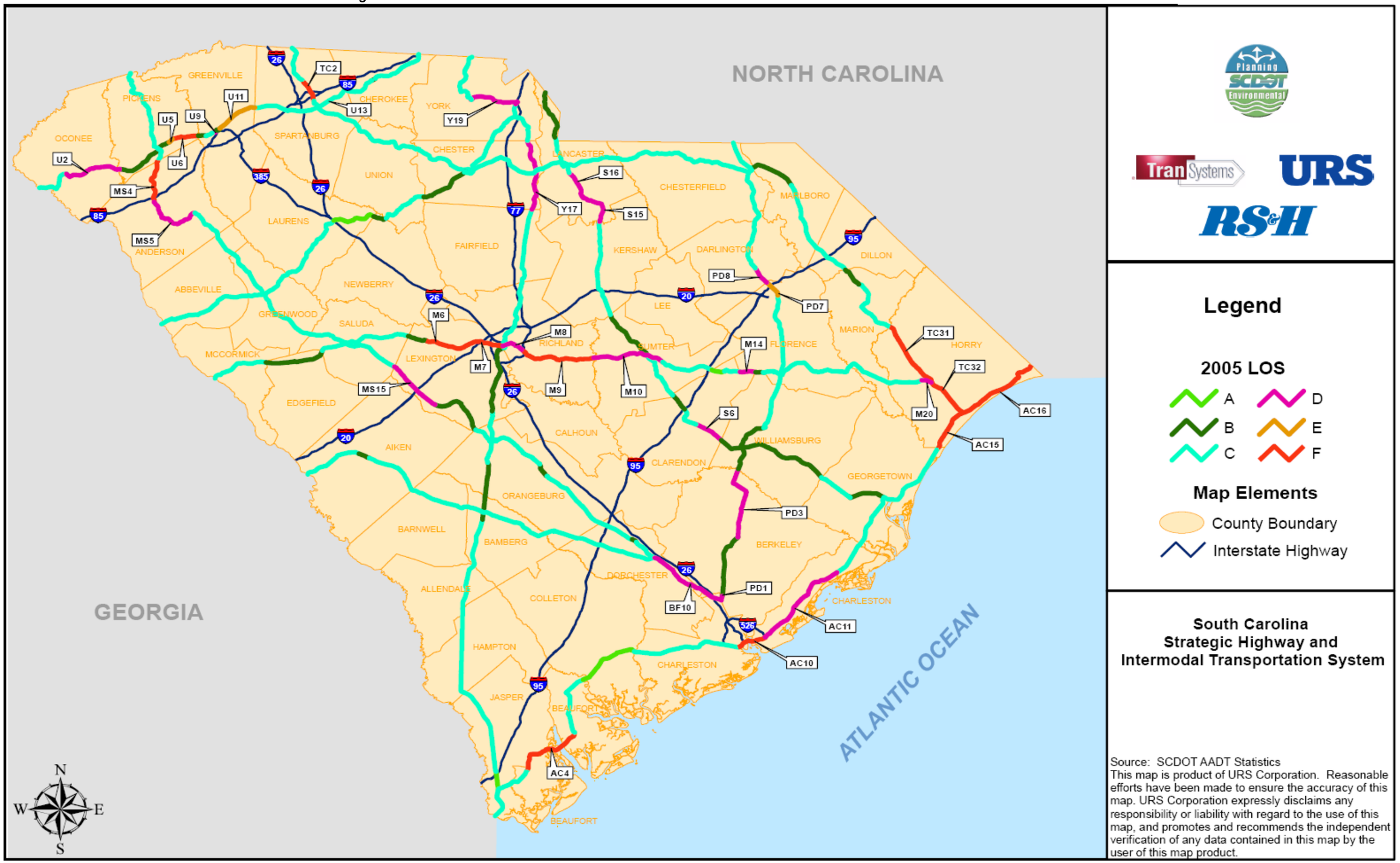
basis for the trend growth factors calculated for making the future traffic projections. A screening analysis identified any LOS of D or worse as a deficiency on facilities located in transitioning and rural areas, and any LOS of E or worse as a deficiency on facilities located in urban areas.

In order to accomplish the future LOS analysis, the traffic was forecast for the horizon year of 2030. This projection utilized a trend growth factor calculated from the historical data. Because of some data gaps, several of the facilities showed a declining growth rate. In order to rectify that issue, population growth projections for each county, developed by the South Carolina Budget and Control Board, - Office of Research and Statistics, were reviewed and a population based trend growth factor was calculated. This growth factor was applied to the existing traffic volumes on those facilities in the counties where the population was expected to grow, but the traffic showed a decline due to data anomalies. However, in those counties where population projections were expected to decline, the declining traffic was not adjusted. Level of service maps for the strategic network in years 2005 and 2030 are illustrated by Figures 2 and 3, respectively.

2. Identification of Issues: Safety

The safety analysis was based on a calculated accident rate per million vehicle miles of travel. This accident rate was calculated using three years of the most recent and available crash data. Data was also collected to determine the number of fatalities that occurred on each segment of the facility. The average accident rate per million vehicle miles of travel calculated for the strategic system was obtained for the rural/transitioning segments and the urban segments. Any segment that had an accident rate over the system average was identified as an issue.

Figure 2. Year 2005 Level of Service – Statewide Strategic Corridors



Planning SCDOT Environmental

TranSystems URS RS&H

Legend

2005 LOS

A
B
C
D
E
F

Map Elements

County Boundary
Interstate Highway

South Carolina Strategic Highway and Intermodal Transportation System

Source: SCDOT AADT Statistics

This map is product of URS Corporation. Reasonable efforts have been made to ensure the accuracy of this map. URS Corporation expressly disclaims any responsibility or liability with regard to the use of this map, and promotes and recommends the independent verification of any data contained in this map by the user of this map product.

Figure 3. Year 2030 Level of Service – Statewide Strategic Corridors

3. Identification of Issues: Freight

The freight analysis, as described earlier, was based on the combination of updated truck traffic, the location of freight facilities, and the identification of congestion and safety issues. Those segments with high levels of truck traffic were compared with the LOS analysis to determine which congested segments also had high levels of truck travel. These segments were examined specifically from a freight perspective and included the examination of associated land uses and the identification of the freight facilities. Operational issues and constraints were also examined for these segments to determine if there were some potential solutions that were specifically freight oriented, such as the implementation of service roads, and intersection and turning radii improvements. In addition, segments that carried a high percentage or trucks, but were not congested, were also assessed with the same criteria. A map showing freight facilities relating to strategic corridors is shown in Figure 4.

4. Identification of Potential Solutions

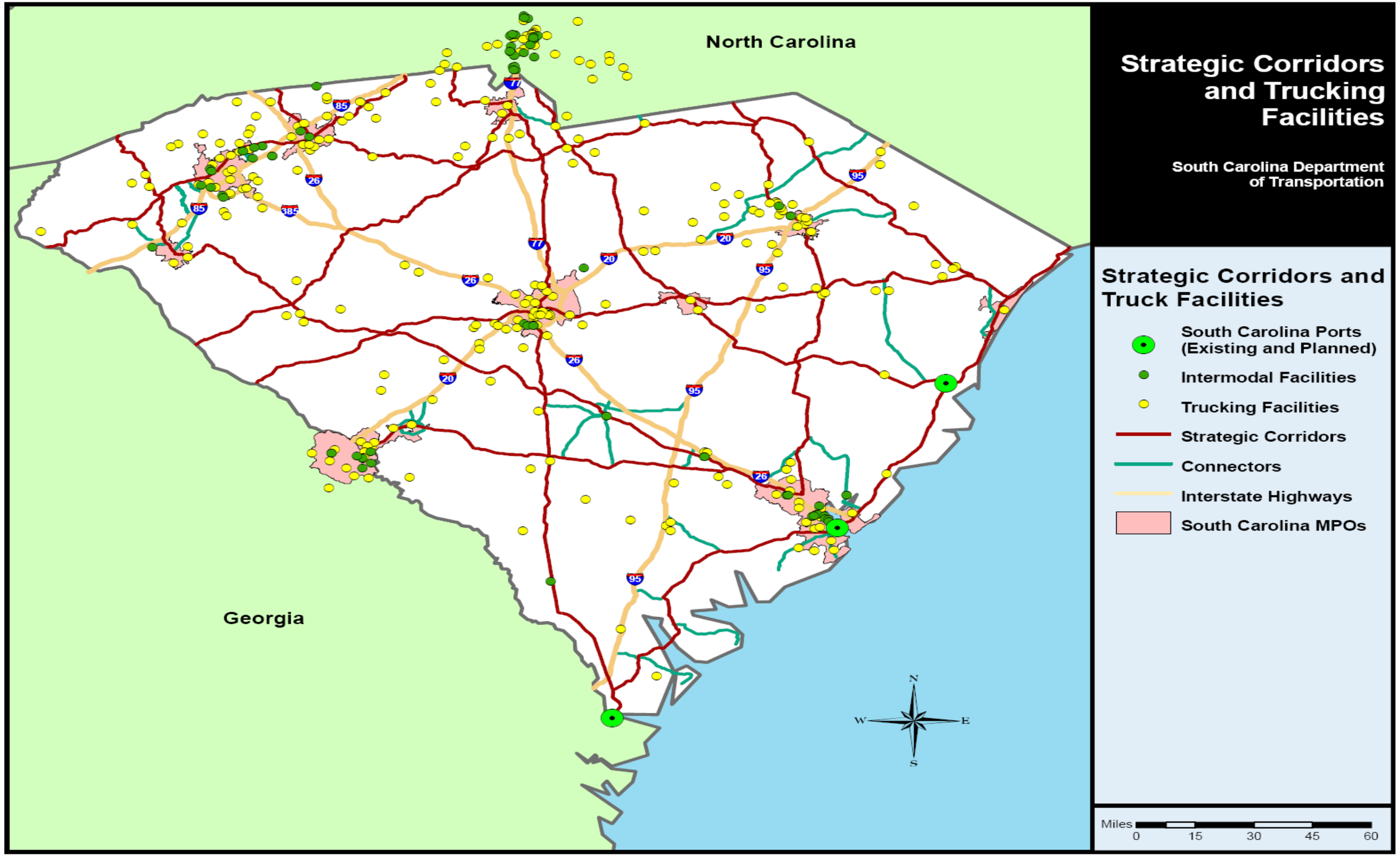
The identification of potential solutions to address the identified issues and deficiencies encompasses all of the analyses, assessments and screening results. There are a wide variety of tools found in the toolbox of solutions to address the issues of safety, congestion and freight movement, as well as incorporating existing or potential transit activities.

This toolbox includes the traditional approaches of capacity enhancements and operational improvements. It also includes the more non-traditional approach of integrating transportation with land use through the implementation of access management techniques, which can functionally increase the capacity of a facility without the disruption of adding additional lanes. The recognition of the impacts of land uses is a critical factor in determining the appropriate solution for specific areas. In addition, another critical element is the recognition of the context of the proposed solution, particularly with regard to the sense of community that exists or that may be enhanced and the quality of life for the residents of an area.

The toolbox also includes a combination of approaches, combining access management with additional lanes, and with the potential for any new lanes to be managed lanes, special use lanes, or the opportunity to include transit facilities and bicycle and pedestrian facilities.

The approach is developing the potential solutions, those segments with identified issues were examined and potential solutions developed that utilized the full range tools available. The first step was to examine each identified deficiency with regard to the associated land use; the potential for alternative modes, including transit, bicycle and pedestrian; the context of the surrounding area; and the high level environmental screens. Incorporating these elements in the beginning of the process provided direction and parameters for the further

Figure 4. Freight Volumes and Facilities on Strategic Corridors



development of potential solutions. Each of the tools available was examined for relevance to the issues and ability to efficiently address the identified issue. Freight considerations were also specifically considered from both an operational and overall movement perspective. As mentioned above, preservation or enhancement of the community character was a critical element in the development of any solution.

D. Project Prioritization

Once the potential solutions were identified, and the opportunity for public input has been provided, each of the projects will be ranked and the financially feasible plan developed. A ranking procedure has been established for the projects following the specific guidelines outlined in the project prioritization process found in Act 114. This prioritization process follows the guidelines developed for Metropolitan Planning Organizations (MPO) and Councils of Government (COG) by the SCDOT Planning staff. By using this standard prioritization process, the projects defined on the strategic system can be compared to other projects currently found in the Statewide Transportation Improvement Program. The ranking process includes the following elements:

1. Financial viability
2. Safety
3. Economic Development
4. Congestion
5. Truck traffic
6. Pavement Quality
7. Environmental Impacts

Consideration is being given to adding other ranking criteria within the strategic network, including such factors as project grouping, local project funding (leveraging), alternative mode solutions, etc. The inclusion of alternative transportation solutions was considered, as well as the consistency of the project with local land use plans.

Project ranking will occur for those elements that include project specific recommendations following public input on the needs and deficiencies identified in Plan.

Strategic Corridor System Action Plan

ATLANTIC COAST CORRIDOR (16 SEGMENTS – 225 MILES)

I. Introduction

The Atlantic Coast Corridor travels along US 17 from the State of North Carolina line in Horry County to US 17 in Jasper County ending at the Georgia and US 78 in South Carolina. It passes through six counties – Jasper, Beaufort, Colleton, Charleston, Georgetown and Horry. A map of the corridor is shown in Figure 1.

US 17 was constructed in the late 1920s and early 1930s and has served as the primary coastal highway within the State of South Carolina since its construction. US 17 and US 17A connect the major coastal metropolitan areas of the state with those of neighboring states of North Carolina and Georgia. The corridor provides an alternate route to I-95 which runs parallel and to the west (inland) of the corridor. This corridor also provides an important route connecting the Port of Charleston to I-95 (via US 17) and coastal destinations within northeastern South Carolina. Assuming recent trends continue, the majority of the counties along the Atlantic Coast corridor are projected to experience very high rates of population growth over the next several decades, furthering increasing personal and freight travel demands along this critical corridor.

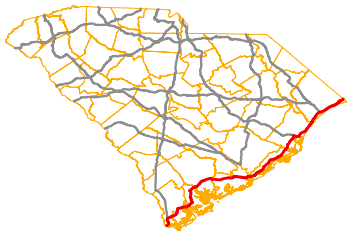
Atlantic Coast Connectors have been identified as routes that link the Atlantic Coast Corridor to major areas and interstate highways. Nine (9) connectors have been identified for this corridor. Key routes include connections to I-95 along US 278 to Hilton Head Island; connections to Hunting Island along US 21 from SC 170 at Beaufort; connections to I-95 along US-17 at Gardens Corner; connections to I-95 along SC 64 through Walterboro; Charleston County connections form US-17 to Rockville and Folly Beach along SC 700 and SC 171, respectively; connections to the Port of Georgetown along Dock Street; and connections along Harrelson Boulevard to the Myrtle Beach International Airport.

II. Corridor Issues

The issues within the corridor were identified by segment and were based on several criteria. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Atlantic Coast Corridor.

Figure 1. Atlantic Coast Corridor

Strategic Corridor System



Segment	County	Route	From	To	Length (miles)
AC-1	Jasper	US 17	GA State line	SC 170 Alternate	4.1
AC-2	Jasper	SC 170A/SC 170	US 17	Beaufort County	9.43
AC-3	Beaufort	SC 170	Jasper County	US 278	6.53
AC-4	Beaufort	SC 170	US 278	US 21	19.12
AC-5	Beaufort	US 21	SC 170	US 17	13.07
AC-6	Beaufort	US 17	US 21	Colleton County	5.97
AC-7	Colleton	US 17	Beaufort County	SC 64	16.35
AC-8	Colleton	US 17	SC 64	Charleston County	0.96
AC-9	Charleston	US 17	Colleton County	SC 171	28.82
AC-10	Charleston	US 17	SC 171	I-526	8.72
AC-11	Charleston	US 17	I-526	City of Awendaw	17.22
AC-12	Charleston	US 17	City of Awendaw	Georgetown County	20.37

Segment	County	Route	From	To	Length (miles)
AC-13	Georgetown	US 17	Charleston County	US 521	15.19
AC-14	Georgetown	US 17	US 521	Horry County	22.83
AC-15	Horry	US 17	Georgetown County	Grissom Parkway	10.92
AC-16	Horry	US 17	Grissom Parkway	NC State line	24.96
C-1	Beaufort	US 278	SC 170	Hilton Head Island	18.55
C-2	Jasper	US 278	I-95	SC 170	7.85
C-3	Beaufort	US 21/US 21 Bus.	Hunting Island	SC 170	18.76
C-4	Beaufort	US 17	I-95	US 21	8.4
C-5	Colleton	SC 64	US 17	I-95	18.94
C-6	Charleston	SC 700	US 17	Rockville	18.75
C-7	Charleston	SC 171	US 17	Folly Beach	8.25
C-8	Georgetown	Dock St.	US 17	Port of Georgetown	0.5
C-9	Horry	Harrelson Blvd.	US 17	Myrtle Beach Int'l Airport	1.21

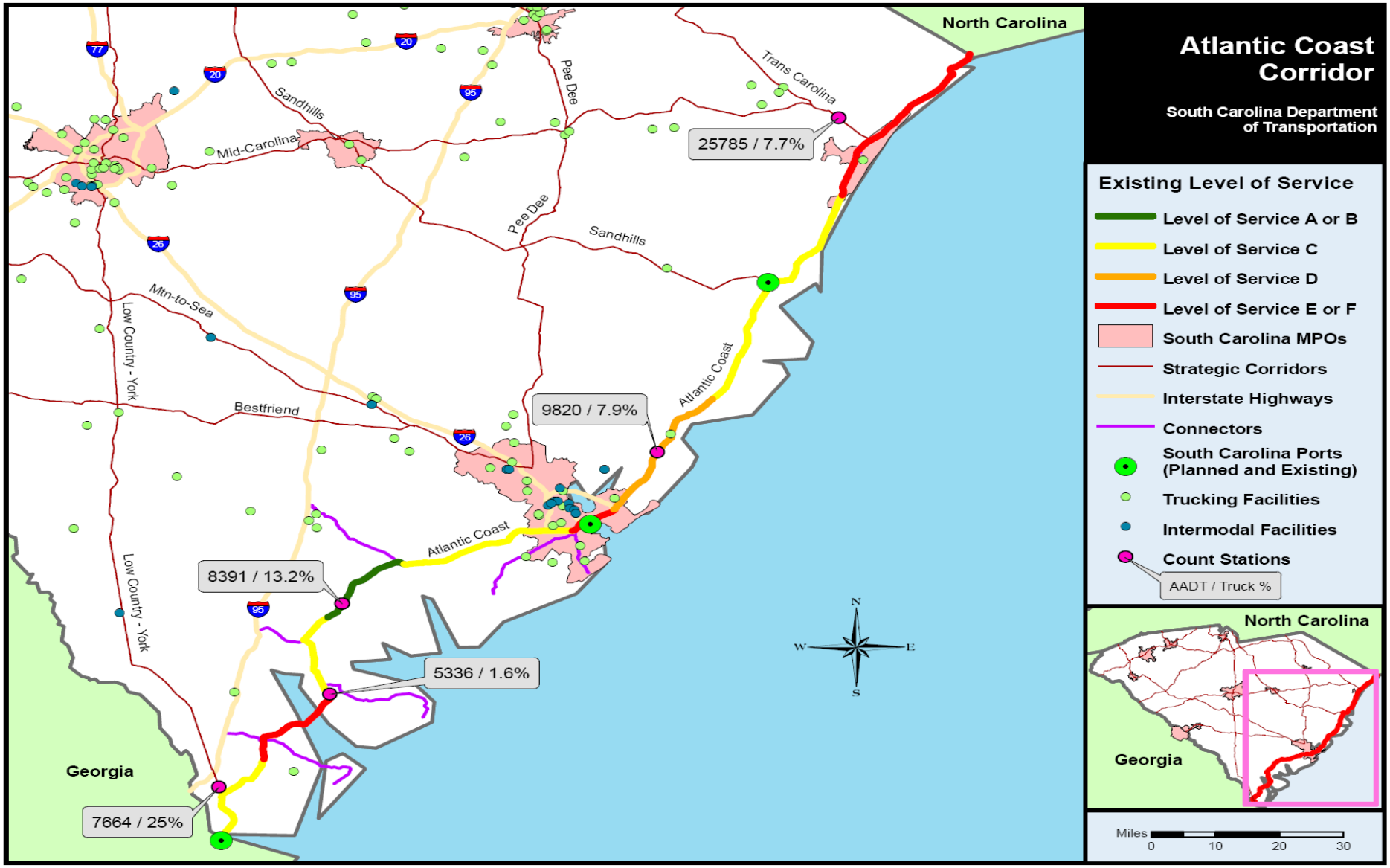
ATLANTIC COAST CORRIDOR
US 17, SC 170, SC170 A

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

0 5 10 20 Miles

Source: SCDOT GIS Data.
This map is product of URS Corporation. Reasonable efforts have been made to ensure the accuracy of this map. URS Corporation expressly disclaims any responsibility or liability with regard to the use of this map, and promotes and recommends the independent verification of any data contained in this map by the user of this map product.

Figure 2. Atlantic Coast Corridor Freight Characteristics



Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

U.S. 17 between the Georgia and North Carolina borders is the center of the East Coast Greenway Corridor (ECGC). The ECGC is a proposed trail system from extending from Florida to Maine. It incorporates trail segments that are already built, such as the West Ashley Greenway in Charleston, and the Waccamaw Neck Bikeway near Litchfield Beach.

The East Coast Greenway Alliance attempts to develop trails that are either off highway or that can be made safe along highway rights of way. As deficient segments of U.S. 17 are prioritized for improvement, consultation with the East Coast Greenway Alliance to promote the completion of the ECGC is recommended.

Deficient Segment: AC -1 (US 17)
Georgia State Line to SC 170 Alternate

This undivided, two-lane facility is projected to operate LOS E by 2030. There are no safety issues associated with this segment.

In addition to the projected congestion in 2030, the segment will provide the direct connection to the new port on the Savannah River, which is in the very early stages of planning. As the planning process moves forward, continuing coordination with the port plans, as well as coordination with the transportation planning efforts of the Low Country Council of Governments, the Savannah Metropolitan Planning Organization and the Georgia Department of Transportation, will ensure that the access to this important new economic generator will be included in the strategic system.

Identified Segment Issues:

- Future congestion
- Potential freight movement from planned port
- Rapid development throughout the area

Potential Solutions:

Capacity Improvement, widening to four lanes. Implement access management strategies, including an earth median and controlled access

points from future development. Access points should be determined in conjunction with future port considerations.

A widening is identified for US 17 from the Georgia state line to SC 170 in the Lowcountry Council of Government Transportation Improvement Program (TIP). The current phase of the project is Preliminary Engineering. The region's long range includes widening the Backwater Bridge leading into Georgia.

Potential Project Type:	Capacity Improvement
Project Limits:	Georgia State Line to SC 170 Alt
Project Length (miles):	4.10

Deficient Segment: AC -3 (SC 170)
Jasper County Line to SC 170

This undivided, 2 lane facility is projected to operate LOS F by 2030. There are no safety issues associated with this segment.

In addition to the projected congestion in 2030, this segment serves the tremendous growth that is occurring throughout the Low Country area of the State. This growth includes large residential developments, as well as commercial and retail development. There are potential impacts associated with the planned port, particularly in the form of associated distribution centers. Beaufort County has identified a widening on SC 170 from SC 46 (May River Road) to Tide Watch Drive. The project will include widening to four and six-lane divided sections.

Identified Segment Issues:

- Future congestion
- Potential freight movement from planned port
- Rapid development throughout the area

Potential Solutions:

Capacity Improvement, widening to four lanes. Implement access management strategies, including an earth median and controlled access points from future development. Care should be taken to maintain the coastal sense of place through careful preservation of sensitive intrinsic resources.

Potential Project Type:	Capacity Improvement
Project Limits:	Jasper County (New River) to SC 170 (May River Road)
Project Length (miles):	1.95

Deficient Segment: AC - 4 (SC 170)
US 278 to SC 280

This segment was recently widened to four lanes with earth median. Local land use decisions, development patterns, and access to the facility from parcels will need to be evaluated with regard to the long term impacts on the transportation system.

Deficient Segment: AC – 5 (US 21)
SC 280 (Laurel Bay Road) to S -71 (Clarendon Road)

This four-lane facility is projected to operate LOS F by 2030. There is also a safety issue associated with this segment, with the crash rate above the strategic system average.

In addition to the projected congestion in 2030, this segment serves the tremendous growth that is occurring throughout the Low Country area of the State, which also impacts the safety issue. In addition, there is a large military facility located along this corridor. This growth includes large residential developments, as well as commercial and retail development.

Identified Segment Issues:

- Future congestion
- Serves military installation
- Safety
- Rapid development throughout the area

Potential Solutions:

Two separate operational improvements to address safety and congestion. Potential for grade separation at intersection and other intersection operational improvements. A parallel rail line also provides the opportunity for implementation of a bicycle/pedestrian facility. Care should be taken to maintain the coastal sense of place through careful preservation of sensitive intrinsic resources.

AC 5-1:

Potential Project Type:	Operational Improvement, with grade separation at US 21 and SC 116 and other intersection improvements at US 21 and SC 280
Project Limits:	SC 280 (Laurel Bay) to SC 116 (Parris Island Gateway)
Project Length (miles):	1.42

AC 5-2:

Potential Project Type:	Operational Improvement, with intersection improvements at US 21 and S-71
Project Limits:	SC 116 (Parris Island Gateway) to S-71(Clarendon Road)
Project Length (miles):	2.50

Deficient Segment: AC – 6 (US 17)
US 21 to Colleton County

This facility is projected to operate LOS F by 2030. In addition to the projected congestion in 2030, this segment functions as part of the connection between Beaufort and Charleston and also to I-95. There are a tremendous number of sensitive environmental, cultural and historic resources located throughout this corridor and care must be taken to avoid adverse impacts.

There is also a high percentage of trucks utilizing this facility. Although there is a lack of detailed origin and destination data specific to truck and freight movement, the high percentage of trucks on this facility are likely due to freight movement from the Port of Charleston to destinations south by accessing I-95. The percentage of truck traffic on this segment is 13.2%.

A project is currently underway to widen US 17 from US 21 (Gardens Corner) to the Combahee River to a four-lane, divided roadway. This project is identified in the STIP as extending into Colleton County to Jacksonboro and is part of the SCDOT ACE Basin Parkway project, Segment 1. SCDOT has recently provided additional funding to extend the current widening north of the Combahee River.

Identified Segment Issues:

- Future congestion
- High truck traffic
- Sensitive environmental issues

Potential Solutions:

Capacity improvement to address future congestion and truck traffic. Because of the pristine nature of the area and its intrinsic resources, care should be taken to maintain the tree canopy and character of this coastal route. Intersection improvements should also be implemented at US 21 and US 17. There is also the potential to continue the possible bicycle/pedestrian trail on the parallel rail facility.

Potential Project Type:	Capacity improvement with intersection improvement at US 21 and US 17
Project Limits:	US 21 to Colleton County
Project Length (miles):	5.93

Deficient Segment: AC – 7 (US 17)
Beaufort County Line to SC 64

This segment has an identified safety issue, with the crash rate higher than the system average crash rate. The SCDOT has taken serious measures to mitigate the safety issue through the lowering of the speed limit and designated areas for passing. Improvements to this section are planned as a subsequent phase to the work currently underway in Segment AC-6. However, there is currently no funding for this segment.

There is also a high percentage of trucks utilizing this facility. Although there is a lack of detailed origin and destination data specific to truck and freight movement, the high percentage of trucks on this facility are likely due to freight movement from the Port of Charleston to destinations south by accessing I-95. The percentage of truck traffic on this segment is 13.2%.

Deficient Segment: AC – 9 (US 17)
SC 174 to S-1684

This facility is projected to operate LOS F by 2030, with the portion of the segment from SC 162 to S-317 currently operating at LOS E. There is also a high percentage of trucks utilizing this facility and there is a safety issue in this segment, with the crash rate higher than the system average crash rate.

In addition to the current congestion on one portion of the segment and the projected congestion in 2030, this segment provides the connection from the smaller towns and suburbs east of Charleston to that regional center. Because of the economic connections to the City of Charleston, there is the potential for commuter based transit service within the segment.

An intersection project is programmed in the Charleston County RoadWise Program at US 17 and Old Jacksonboro Road in Ravenel.

Identified Segment Issues:

- Future congestion
- High truck traffic
- Safety

Potential Solutions:

There are a wide variety of improvements identified to address the issues within this segment. These improvements include capacity enhancements; access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection improvements. Because of the potential for commuter based transit

service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access. In addition, there is the potential for the extension of the bicycle/pedestrian facilities.

AC 9-1:

Potential Project Type:	Operational improvements
Project Limits:	SC 174 to SC 165
Project Length (miles):	6.00

AC 9-2:

Potential Project Type:	Access Management
Project Limits:	SC 165 to S-1310 (Miley Hill Road)
Project Length (miles):	1.59

AC 9-3:

Potential Project Type:	Operational
Project Limits:	S-1310 (Miley Hill Road) to SC 162
Project Length (miles):	4.28

AC 9-4:

Potential Project Type:	Bicycle/Pedestrian
Project Limits:	SC 162 to S0317 (Davidson Road)
Project Length (miles):	0.78

AC 9-5:

Potential Project Type:	Capacity (includes bridge) and Bicycle/Pedestrian
Project Limits:	S-1655 (McCleod Street) to S-1684 (Dobbin Road)
Project Length (miles):	1.17

Deficient Segment: AC – 10 (US 17)
S-1684 to I-526

This segment, located within the urban area of Charleston, ranges from 4 to 8 lanes and has identified deficiencies based on both existing and future congestion levels. There is also an identified safety issue, with the crash rate higher than the system average crash rate. The Port of Charleston also impacts this segment and numerous trucking facilities are located in the area.

The portion of this segment extending across the Charleston peninsula is primarily a constrained urban corridor due to the heavy development in the area.

Transportation Demand Strategies, Congestion Management strategies, and Intelligent Transportation Systems should be explored to help manage/mitigate the congestion. Additional transit service should also be explored, including the potential for fixed guideway commuter based transit. Additional potential transit operational strategies could include queue jumpers, bus pullouts and the exploration of transit oriented managed lanes. Pedestrian and bicycle facilities and connectivity are also an important consideration. From the local land use perspective, redevelopment opportunities should include transit oriented applications.

The eastern portion of the project, extending from the Cooper River Bridge to I-526 in Mount Pleasant is a Charleston County RoadWise project. This project will include widening from four to six lanes and improvements to the frontage roads to better accommodate bicycle and pedestrian mobility. The Charleston Area Regional Transit Authority (CARTA) reports increased ridership in this corridor, and opportunities for queue jumping using frontage roads are being explored.

Deficient Segment: AC – 11 (US 17)
SC 517 to S-584

A portion of Segment AC-11 has recently been widened to six lanes, between Hungryneck Boulevard (I-526 Ramps) and the Isle of Palms Connector (SC 517). The next piece of this segment is a four-lane facility which currently operates at a congested level from SC 517 to SC 41 and is expected to operate at LOS F from SC 517 to S-584 by 2030. There is a relatively high percentage of trucks utilizing this facility and there is a safety issue in this segment, with the crash rate higher than the system average crash rate.

In addition to the current congestion on one portion of the segment and the projected congestion in 2030, this segment provides the connection from the areas north of Charleston and also provides connections to the beach and resort areas north of Charleston. Because of the economic connections to the City of Charleston, there is the potential for commuter based transit service within the segment.

The Town of Mount Pleasant as begun some preliminary engineering studies to consider widening the section from SC 517 to SC 41 to six lanes.

Identified Segment Issues:

- Future congestion
- High truck traffic
- Safety

Potential Solutions:
The potential solutions identified to address the issues within this segment include capacity enhancements; access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection improvements. In addition, the potential for service or frontage roads should be explored. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

AC 11-1:

Potential Project Type:	Capacity improvements and operational improvements
Project Limits:	SC 517 to SC 41
Project Length (miles):	2.17

AC 11-2:

Potential Project Type:	Capacity improvements; access management and operational improvements
Project Limits:	SC 41 to S-584 (Seewee Road)
Project Length (miles):	7.4

Deficient Segment: AC – 13 (US 17)
S-18 to US 701

This segment ranges between 2 to 4 lanes and is expected to operate at LOS F by 2030. There is also a relatively high percentage of trucks utilizing this facility. In addition to the congestion in 2030, this segment is part of the connection between the Charleston area and the Georgetown/Grand Strand area of the state.

Identified Segment Issues:

- Future congestion
- High truck traffic

Potential Solutions:
The potential solutions identified to address the issues within this segment include access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection

improvements. In addition, the potential for service or frontage roads should be explored.

For prioritization purposes, the Grand Strand Area Transportation Study (GSATS) groups their projects into priority tiers or groupings, rather than assigning individual priorities. The GSATS Long Range Transportation Plan includes a Tier I project to implement Corridor Study roadway improvements on US 17 and a Tier II project to install traffic counters and resurface US 17.

AC 13-1:

Potential Project Type:	Access management and operational improvements
Project Limits:	S-18 (S. Island Road) to US 701 (North Fraser Street)
Project Length (miles):	1.93

Deficient Segment: AC – 14 (US 17)
S-759 to S-266

This segment is a 4 lane facility that is includes both divided and undivided sections. The segment is expected to operate in a range, based on varying geometry, between LOS D and F by 2030. The portion of the segment from S-449 to S-362 is currently operating at LOS D and is expected to operate at LOS F by 2030. There is also a relatively high percentage of trucks utilizing this facility which serves the Port of Georgetown. In addition to the congestion in 2030, this segment is part of the connection between the Georgetown area and the Grand Strand area.

Identified Segment Issues:

- Future congestion
- High truck traffic

Potential Solutions:

The potential solutions identified to address the issues within this segment include access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection improvements. In addition, the potential for expanding the existing express bus service between Georgetown and Myrtle Beach should be explored, as well as increased local service in the section between S-392 and Horry County.

There are several projects on this segment contained in the GSATS Long Range Transportation Plan. These projects include a Tier I project to

widen the US 17 By-Pass to 6 lanes from the airport to Murrells Inlet; a Tier I project for Corridor Study roadway improvements on US 17; a Tier I project to install traffic counters and resurface US 17; and a Tier II widening project on US 17 from Murrells Inlet to Pawley's Island.

AC 14-1:

Potential Project Type:	Access management and operational improvements
Project Limits:	S-759 (Waterford Road) to S-266 (S. Causeway Road)
Project Length (miles):	1.67

AC 14-2:

Potential Project Type:	Access management and operational improvements
Project Limits:	S-266 (S. Causeway Road) to S-449 (Martin Luther King)
Project Length (miles):	2.84

AC 14-3:

Potential Project Type:	Access management and operational improvements
Project Limits:	S-449 (Martin Luther King) to S-362 (Sandy Island Road)
Project Length (miles):	3.11

AC 14-4:

Potential Project Type:	Access management and operational improvements
Project Limits:	S-362 (Sandy Island Road) to S-392 (Wesley Road)
Project Length (miles):	2.08

AC 14-5:

Potential Project Type:	Access management and operational improvements
Project Limits:	S-392 (Wesley Road) to Horry County Line
Project Length (miles):	4.06

Deficient Segment: AC – 15 (US 17)
SC 544 to US 501

This segment is a 4 lane divided facility that currently operates at LOS F between SC 544 and SC 707 and is projected to operate at LOS F by 2030 from SC 544 to US 501. Although there are relatively high levels of congestion, there is no

specific identified safety issue; however, there are specific areas throughout the segment that need improvements to address safety. There is a mix of traffic that includes a relatively high percentage of trucks, a high level of tourist traffic particularly in the summer and the local commuters. The facility has a mix of land uses, with intense areas of commercial development. There are also vacant parcels available for development.

Identified Segment Issues:

- Future congestion
- Truck traffic

Potential Solutions:

The potential solutions identified to address the issues within this segment include access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection improvements. There is the potential for increasing local bus service within the segment to serve both residents and visitors in this high tourism area. In addition, connected bicycle and pedestrian facilities should be incorporated into the transportation system that serves the area.

There are several projects identified in the GSATS Long Range Transportation Plan. These projects include a Tier I project constructing an interchange at US 17 By-Pass and 10th Avenue North and extending 10th Avenue west of the Intracoastal Waterway to Carolina Forest Boulevard; a Tier I project to install traffic counters and resurface US 17; and a Tier II project incorporating improvements to US 17 By-Pass and the Garden City Connector.

The Southern Evacuation Life Line (SELL) is an alternate route parallel and south of US 501 connecting the Atlantic Coast Corridor with the US 501, providing another route across the Waccamaw River. This new corridor would reduce the demands on the Atlantic Coast Corridor, and replace some of the recommended improvements in this section.

AC 15-1:

Potential Project Type:	Access management and operational improvements
Project Limits:	SC 544 (Dick Pond Road) to SC 707 (Socastee Boulevard)
Project Length (miles):	2.69

AC 15-2:

Potential Project Type:	Access management and operational improvements
Project Limits:	SC 707 (Socastee Boulevard) to US 501
Project Length (miles):	3.16

Deficient Segment: AC – 16 (US 17)
US 501 to S-50

This segment is a 4 lane divided facility that currently operates at LOS F between US 501 to 67th Avenue and from S-94 to S-50. The entire segment is expected to operate at LOS F by 2030. There is also a safety issue identified within the segment where the crash rate exceeds the system average crash rate. There is a mix of traffic that includes a relatively high percentage of trucks, a high level of tourist traffic particularly in the summer and the local commuters. The facility has a mix of land uses, with intense areas of commercial development. There are also vacant parcels available for development.

There are several projects included in the MPO Long Range Transportation Plan, including:

Tier I projects:

- Widen US 17 from 4 to 6 lanes from 8th Avenue to SC 9
- Interchange improvements at SC 9 and US 17
- Corridor Study roadway improvements along US 17 in North Myrtle Beach
- Signalization update in North Myrtle Beach on US 17

Tier II projects:

- Widening US 17 By-Pass to 6 lanes from 29th Avenue north to US 17 Business
- Widen bridge over Intracoastal Waterway
- Installation of traffic counters and resurfacing within the MPO area

Projects Underway:

- Project #9054, currently under construction, to widen US 17 By-Pass to 6 lanes between US 501 and 29th Avenue North

Identified Segment Issues:

- Future congestion
- Truck traffic

Potential Solutions:
The potential solutions identified to address the issues within this segment include a range of strategies including capacity enhancements; access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection improvements. There is the potential for introducing tourism based local bus service, as well as commuter based services to serve local residents. There is also the potential for fixed guideway service between Myrtle Beach and North Myrtle Beach. In addition, connected bicycle and pedestrian facilities should be incorporated into the transportation system that serves the area.

AC 16-1:

Potential Project Type:	Operational improvements
Project Limits:	US 501 (West Broadway) to S-1017 (48th Avenue North)
Project Length (miles):	3.59

AC 16-1(a):

Potential Project Type:	Capacity enhancement
Project Limits:	US 501 (West Broadway) to S-1017 (48th Avenue North)
Project Length (miles):	3.59

AC 16-2:

Potential Project Type:	Capacity enhancement
Project Limits:	S-1017 (48th Avenue North) to 67th Avenue
Project Length (miles):	1.69

AC 16-3:

Potential Project Type:	Capacity enhancement
Project Limits:	67th Avenue to US 17 Business
Project Length (miles):	2.64

AC 16-4:

Potential Project Type:	Capacity enhancement and access management
Project Limits:	S-94 (11th Avenue North) to SC 9
Project Length (miles):	1.05

AC 16-5:

Potential Project Type:	Capacity enhancement
Project Limits:	SC 9 to SC 90
Project Length (miles):	0.85

AC 16-6:

Potential Project Type:	Capacity enhancement
Project Limits:	SC 90 to S-50 (Mineola Avenue)
Project Length (miles):	1.77

III. Atlantic Coast Connectors

Connectors have been identified as routes that link the Atlantic Coast Corridor to major activity centers, intermodal facilities are designated evacuation routes or provide links to the Interstate system. Seven (7) connectors have been identified for this corridor.

Connector C-1: US 278

This rural connector extends 18.55 miles between I-95 and Hilton Head Island. This facility provides the important connection from the Atlantic Coast Corridor eastward to the resort of Hilton Head Island and the rapidly developing areas surrounding the island and the town of Bluffton. This connector is also an important emergency evacuation facility. Beaufort County has a number of improvements planned in its Capital Improvements Plan (CIP) for US 278 from Sea Pines Circle to SC 170. Projects include widening and realigning the intersection of US 278 at Squire Pope Road, widening to a six-lane divided highway from Simmonsville Road to SC 170, adding frontage roads and access management, and providing street lighting at signalized intersections. A parallel corridor south of US 278 is also under development. The Bluffton Parkway is a new four-lane, divided arterial with controlled access, and is considered a reliever for US 278.

Connector C-2

This connector is located along US 278 in both Jasper and Beaufort Counties. This rural connector extends 7.85 miles between I-95 in Jasper County and SC 170 in Beaufort County and provides the direct connection to I-95. This facility is also an important emergency evacuation facility.

Connector C-3

This connector is located along US 21 and US 21 Business in Beaufort County. This rural connector extends 18.76 miles from Hunting Island to SC 170. Hunting Island, one of the most visited state parks in South Carolina, is a significant economic and environmental resource. The connector also provides access from the coastal areas into the City of Beaufort. This facility is also an important emergency evacuation facility. The Beaufort County CIP has a project to provide improvements on US 21 (Boundary Street) from Neal Street to Palmetto Street. The project includes safety and intersection operation improvements, streetscaping, and addition of roundabouts.

Connector C-4
This connector begins on US 17 in Jasper County and ends in Beaufort County. This rural connector extends between I-95 and the end of the overlap with US 21 for a total length of 8.40 miles. This connector links the route to Charleston with I-95 and carries a significant amount of truck traffic. This facility is also an important link in the emergency evacuation system.

Connector C-5
This connector is located on SC 64 in Colleton County, between US 17 and I-95. It is 18.94 miles long and is rural for its entire length. This facility provides the direct connection for the Town of Walterboro with I-95, as well as another way to access I-95 from US 17. There are several trucking facilities located on SC 64 near the Interstate. This facility is also an important link in the emergency evacuation system.

Connector C-6
This connector is located along SC 700 (Maybank Highway) in Charleston County, between US 17 and the City of Rockville. Portions of this route are designated as an emergency evacuation route. This connector also provides the direct access to Johns Island, Kiawah Island and Seabrook Island, and carries a mix of commuter and tourist traffic. The Charleston County RoadWise Program includes two projects for this SC 700, a widening and an intersection improvement. The Maybank Highway Widening Project extends from Stono River Bridge to Main Road. The highway will be widened from two to four or five lanes, depending on the section. The proposed design includes a five-foot sidewalk on the north side of the road and a ten-foot multi-use path on the south side of the road. The intersection project is programmed at the intersection of Maybank Highway and SC 171 (Folly Road). A long-range project identified by the Berkeley-Charleston-Dorchester COG is the extension of I-526 to SC 30, which would cross SC 700.

Connector C-7
This connector is located in Charleston County on SC 171 (Folly Road) and provides the link from US 17 and Charleston to Folly Beach. It has an overlap with SC 61 for a portion of its extent. The connector is 3.32 miles in length and carries a mix of commuter and tourist traffic. This facility is an important link in the emergency evacuation system. The Charleston County RoadWise Program includes two intersection improvements for SC 171: Folly Road at Camp Road and Folly Road at SC 700 (Maybank Highway). A long-range project identified by the Berkeley-Charleston-Dorchester COG is the extension of I-526 to SC 30, which would cross SC 171.

IV. Transit in the Atlantic Coast Corridor

The Atlantic Coast Corridor crosses three planning regions between the Georgia and North Carolina borders, Lowcountry, Berkeley-Charleston-Dorchester, and Waccamaw. The transit screening for the corridors is explained in more detail in the Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Project ID	Route	Potential Transit Option(s)
Lowcountry	AC-1 to AC-9	US 17/US 21/SC 170	104.35	Local Bus, BRT
Lowcountry	AC C-1	US 278	18.55	Local Bus, Express Bus, Enhanced Bus/ITS
BCD	AC9-1	US 17 (Savannah Hwy)	6.00	Local Bus, Express Bus, Enhanced Bus/ITS
BCD	AC9-5	US 17 (Savannah Hwy)	1.17	Local Bus, Express Bus, Enhanced Bus/ITS
BCD	AC11-1	US 17 (North Hwy 17)	2.17	Local Bus
BCD	AC11-2	US 17 (North Hwy 17)	7.40	Local Bus
BCD	AC-1 to AC-9	US 17 (North Hwy 17)	104.35	Local Bus, BRT
Waccamaw	AC 14-1	US 17 (Ocean Hwy)	1.67	Local Bus
Waccamaw	AC 14-2	US 17 (Ocean Hwy)	2.84	Local Bus
Waccamaw	AC 14-3	US 17 (Ocean Hwy)	3.11	Local Bus
Waccamaw	AC 14-5	US 17 (Ocean Hwy)	4.06	Express Bus, Local Bus
Waccamaw	AC 15-1	US 17 (Hwy 17 Bypass S)	2.69	BRT, Local Bus, Express
Waccamaw	AC 15-2	US 17 (Hwy 17 Bypass S)	3.16	Bus, Commuter Rail, BRT, Local Bus, Express
Waccamaw	AC 16-1(A)	US 17 (Hwy 17 N)	3.59	Bus, Commuter Rail, BRT, Local Bus, Express
Waccamaw	AC 16-2	US 17 (Hwy 17 N)	1.69	Bus, Commuter Rail, BRT, Local Bus, Express
Waccamaw	AC 16-3	US 17 (Hwy 17 N)	2.64	Bus, Commuter Rail, Local Bus, Express
Waccamaw	AC 16-4	US 17 (Hwy 17 N)	1.05	BRT, Local Bus, Express
Waccamaw	AC 16-5	US 17 (Hwy 17 N)	0.85	BRT, Local Bus, Express
Waccamaw	AC 16-6	US 17 (Hwy 17 N)	1.77	BRT, Local Bus, Express

Strategic Corridor System Action Plan

BEST FRIEND OF CHARLESTON CORRIDOR (10 SEGMENTS – 120 MILES)

I. Introduction

The Best Friend of Charleston Corridor runs from the Georgia State line to US 52 in Charleston County. The corridor begins on US 1 at the state line in Aiken County before changing over to US 17 in the City of Aiken. The remainder of the corridor follows along US 78. The corridor runs through Aiken, Barnwell, Bamberg, Orangeburg, Dorchester and Charleston Counties. A map of the corridor is shown in Figure 1.

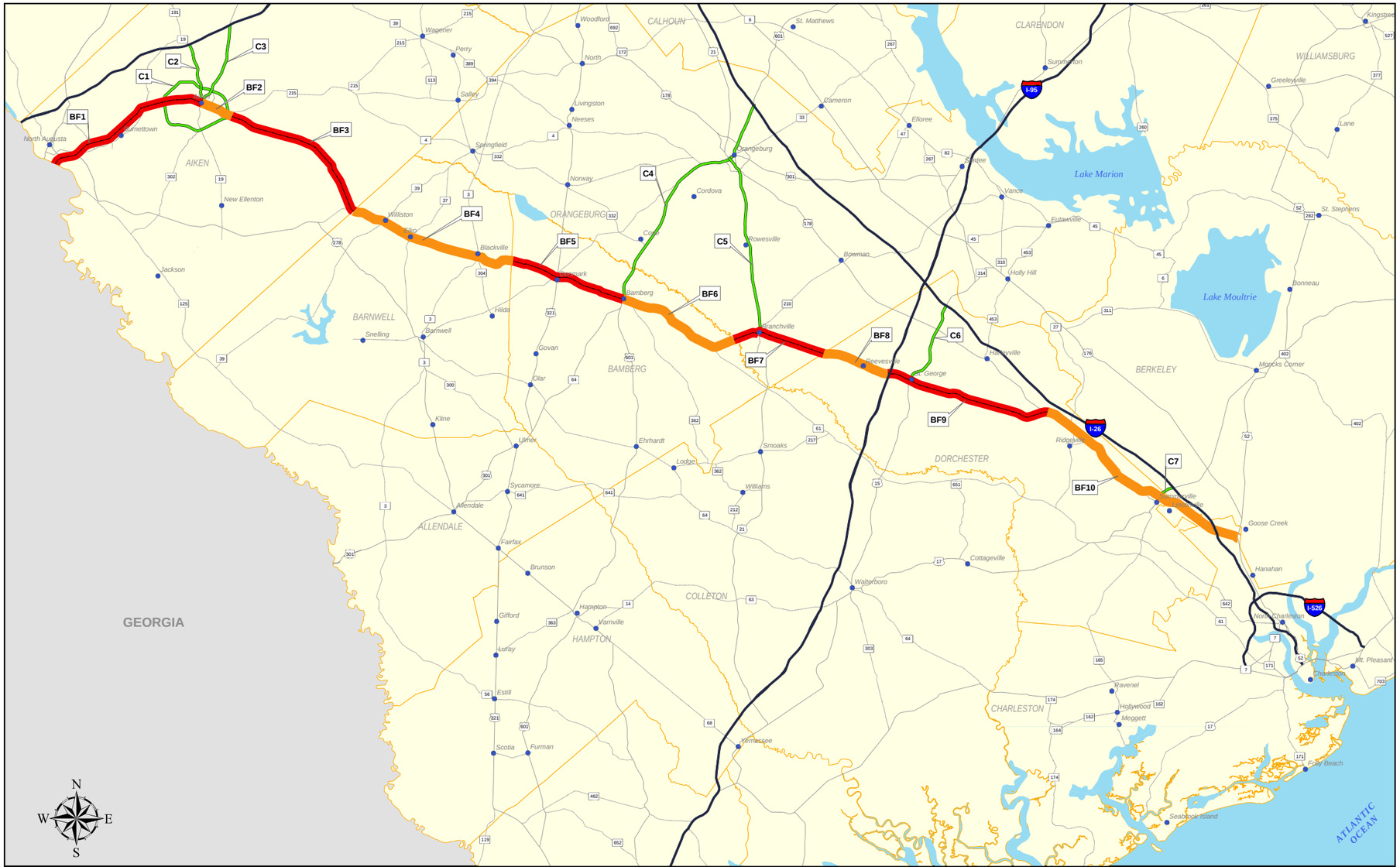
This corridor provides is an important route connecting the Port of Charleston to I-26, I-95, and I-20. The Port of Charleston is one of the busiest ports on the Atlantic and Gulf Coasts, moving almost 2 million containers and over 533,000 tons of break-bulk cargo in 2006. The top commodities moving through the port include agricultural products, consumer goods, machinery, metal and vehicles. The port is one of the State's primary economic engines, contributing about $23 billion into the state's economy and generating about $2.5 billion in tax revenue.

The corridor also runs along the original route of the Best Friend of Charleston railroad. In 1827, the state legislature chartered the South Carolina Canal and Railroad Company to investigate the potential of a railroad system connecting the port in Charleston to inland markets via railroad. Finding this a viable option, the Best Friend of Charleston made its inaugural run on December 25, 1830 and was the first steam locomotive in the United States to offer regularly schedule rail passenger service.

II. Corridor Issues

The identification of issues within the corridor were identified by segment and were based on several criteria. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Best Friend of Charleston Corridor.

Figure 1. Best Friend of Charleston Corridor



Strategic Corridor System

Segment	County	Route	From	To	Length (miles)
BF-1	Aiken	US 1	Georgia State Line	US 78	15.89
BF-2	Aiken	US 78	US 1	SC 4	2.3
BF-3	Aiken	US 78	SC 4	Barnwell County	16.16
BF-4	Barnwell	US 78	Aiken County	Bamberg County	16.15
BF-5	Bamberg	US 78	Barnwell Co.	US 601	11.46
BF-6	Bamberg	US 78	US 601	Orangeburg County	12.25
BF-7	Orangeburg	US 78	Bamberg County	Dorchester County	8.99
BF-8	Dorchester	US 78	Orangeburg County	I-95	6.61
BF-9	Dorchester	US 78	I-95	US 178	15.66

Segment	County	Route	From	To	Length (miles)
BF-10	Dorchester	US 78	US 178	US 52	14.19
C-1	Aiken	SC 302	US78	SC 118	15.39
		SC 118	SC 302	US 78	
C-2	Aiken	SC 19	US 78	I-20	5.67
C-3	Aiken	US 1	US78	I-20	8.05
C-4	Orangeburg	US 301	US 78	I-26	23.59
C-5	Orangeburg	US 21/ US 601	US 78	I-26	22.11
C-6	Dorchester	US 15	US 78	I-26	8.33
C-7	Dorchester	US 17 Alternate	US 78	I-26	1.23

BEST FRIEND OF CHARLESTON CORRIDOR
US 1 / US 78

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

0 5 10 20 Miles

Source: SCDOT GIS Data
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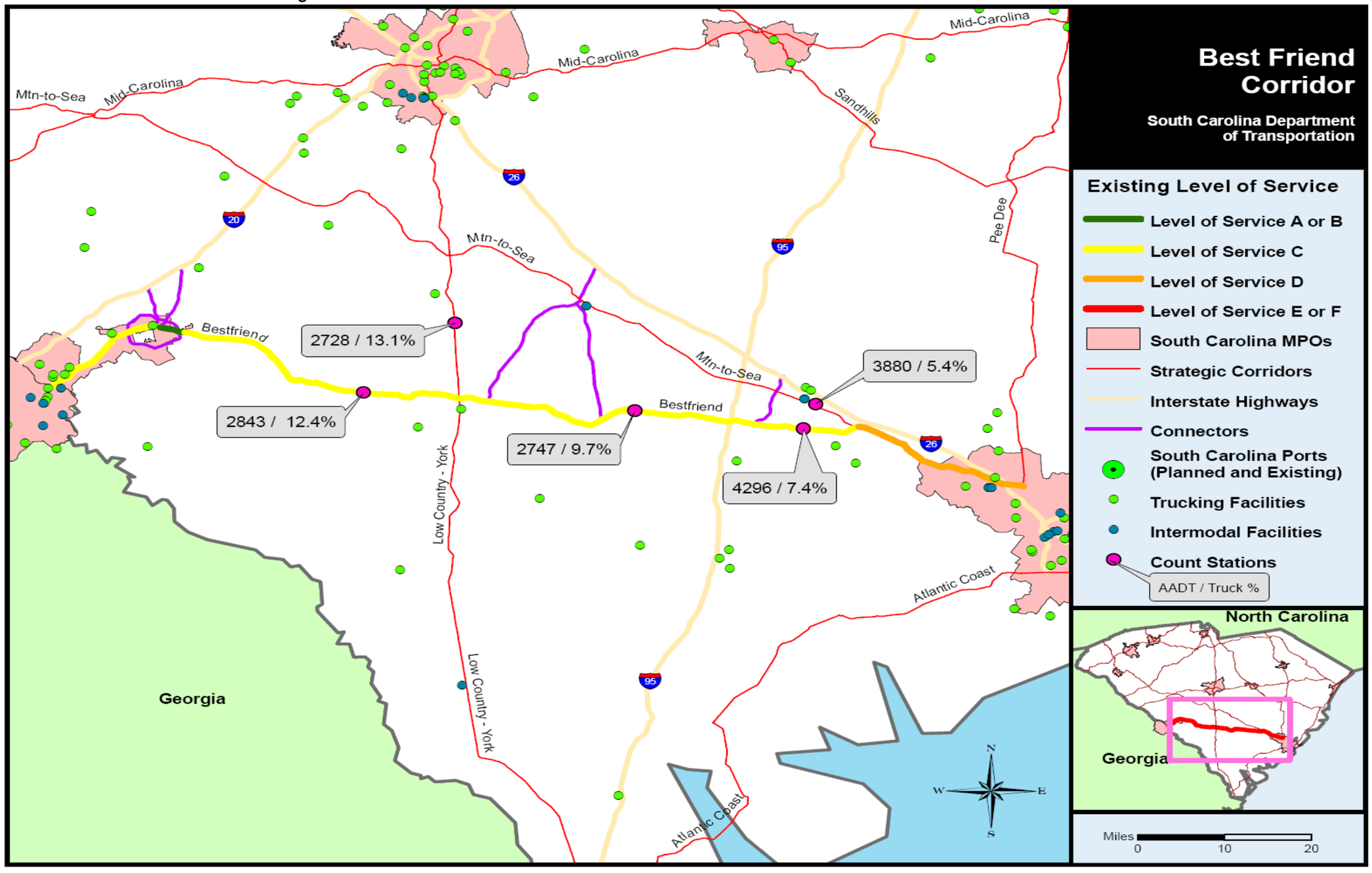
Figure 2. Best Friend of Charleston Corridor Freight Characteristics



Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Deficient Segment: BF-1 (US 1)
Georgia State Line to US 78

This four-lane, divided is projected to operate at LOS F by 2030. The crash rate along this segment (185.33) does not exceed the average for the strategic network (267.10).

In addition to the projected congestion along this segment in 2030, the current design along this section of the facility creates flow issues. The close proximity of acceleration and deceleration lanes in this area requires a high rate of lane changes over a short distance. Improvements to the facility design should improve the safety and flow in this area.

Identified Segment Issues:

- Future congestion
- Major connection between Augusta, GA and Aiken, SC

Potential Solutions:

Operational improvements to improve safety and congestion issues. Extension of the acceleration lanes along this section of the facility in both directions. The bridge widening needed for this project is not included in the most recent SCDOT 5-year plan. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services.

Potential Project Type:	Operational Improvement, extension of acceleration lanes
Project Limits:	Georgia State Line to US 25/SC 121
Project Length (miles):	0.25

Deficient Segment: BF-10 (US 78)
US 178 (Dorchester County) to US 52 (Charleston County)

This segment of the corridor includes two-lane, undivided and four-lane divided sections. This segment is projected to operate at LOS F in 2030. One section of this segment currently operates at LOS F (BF 10-4). The crash rate along this segment (208.89) does not exceed the average for the strategic network (267.10).

In addition to the projected traffic levels in 2030, this segment experiences a high volume of truck traffic due to the industrial growth north of the City of Summerville and the proximity to I-26 and the Port of Charleston. The Berkeley, Charleston, Dorchester region also is experiencing a high rate of residential and commercial growth, which adds to the projected future congestion.

Identified Segment Issues:

- Future congestion
- High truck volumes
- Major connection to Port of Charleston
- High incidence of environmental impacts

Potential Solutions:

Capacity and operational improvements to improve safety and congestion issues. Widening of the two-lane sections to four-lanes, along with intersection improvements and potential frontage roads will improve capacity issues in this area. Installation of earth medians and access controls will improve the operational and safety issues along this segment. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

BF 10-1

Potential Project Type:	Capacity Improvement, widening to four lanes
Project Limits:	S-58 to S-65
Project Length (miles):	2.68

BF 10-2

Potential Project Type:	Capacity Improvement, widening to four lanes
Project Limits:	S-65 to US 17A
Project Length (miles):	1.92

BF 10-3

Potential Project Type:	Capacity Improvement, widening to four lanes
Project Limits:	US 17A to Charleston County Line
Project Length (miles):	1.13

BF 10-4

Potential Project Type:	Capacity Improvement, widening to four lanes
Project Limits:	Dorchester County Line to Benchmark Drive
Project Length (miles):	3.00

BF 10-5

Potential Project Type:	Operational Improvement, access management
Project Limits:	Benchmark Drive to I-26
Project Length (miles):	2.30

BF 10-6

Potential Project Type:	Operational Improvement, access management
Project Limits:	I-26 to US 52
Project Length (miles):	2.20

III. Best Friend of Charleston Connectors

Connectors have been identified as routes that link the Best Friend of Charleston Corridor to major activity centers and intermodal facilities, are designated evacuation routes or provide links to the Interstate system. Seven connectors have been identified for this corridor.

Connector C-1: SC 118 and SC 302

SC 118 and SC 302, in Aiken County, provide a bypass or beltway around the City of Aiken. This bypass connector is important, especially to truck traffic, due to the urban design in the downtown area. Land uses along this connector are low-density rural residential on the west side of the City of Aiken, while more urban residential, commercial and industrial uses are located on the eastern half. SC 118 is in the ARTS MPO Long Range Plan to be widened to four lanes.

Connector C-2: SC 19

This 5.67 mile connector provides direct access from the City of Aiken to I-20 to the north of the city. Trucks leaving the Aiken area with a destination in Columbia, SC or Atlanta, GA use this connector due to the relatively low volumes. The connector currently operates at LOS C and is not expected to worsen by 2030. SC 19 is identified to be widened ARTS MPO Long Range Plan.

Connector C-3: US 1
This 4-lane facility runs 8.05 miles from the City of Aiken to I-20. This connector provides access to the Aiken municipal airport and I-20 in this region. The low volumes on this highway, currently operating at LOS A, and the access to I-20 make this another viable option for trucks with a Columbia, SC destination.

Connector C-4: US 301/601
This four-lane facility runs 23.59 miles from the City of Bamberg to the City of Orangeburg and ending at I-26. The facility operates at no worse than LOS C currently and by 2030 projections. With the exception of the portions of this connector that are located in the cities of Bamberg and Orangeburg, the land use pattern for the remainder of the connector is rural and low density.

Connector C-5: US 21
Similar to the Best Friend of Charleston connector BF-4, this connector provides a link between US 78 and the Mountains to the Sea Corridor (US 178). This 15.23 mile facility runs from the City of Branchville through Orangeburg and ends at I-26. The final portion of this connector overlaps with the Best Friend of Charleston connector 4 on US 601.

Connector C-6: US 15
This four-lane facility is 8.33 miles long and serves the northern end of Dorchester County. The land uses in this area are mostly rural in character, however, a large number of distribution facilities have located in this area recently. This connector provides access from the corridor to I-26 near the I-95 interchange.

Connector C-7: US 17A
This connector runs from the City of Summerville to I-26 in Dorchester County. This four-lane facility runs 1.23 miles through a highly congested commercial area. In addition to connecting the City of Summerville to I-26, US 17A connects the Best Friend of Charleston Corridor to the Pee Dee Corridor in Berkeley County.

IV. Transit in the Best Friend of Charleston Corridor

The Best Friend of Charleston Corridor crosses two planning regions beginning in the Lower Savannah COG at the Georgia border extending into the Berkeley-Charleston-Dorchester region. The transit screening for the corridors is explained in more detail in those Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Project ID	Route	Potential Transit Option(s)
BCD	BF10-1	US 78	2.68	Commuter Bus, BRT, Local Bus, Express Bus
BCD	BF10-2	US 78 (West 5th N. St.)	1.92	Commuter Bus, BRT, Local Bus, Express Bus
BCD	BF10-3	US 78 (Hwy 78 East)	1.13	Commuter Bus, BRT, Local Bus, Express Bus
BCD	BF10-4	US 78 (Hwy 78 East)	3.00	Commuter Bus, BRT, Local Bus, Express Bus
BCD	BF10-5	US 78 (Hwy 78 East)	2.30	Commuter Bus, BRT, Local Bus, Express Bus
BCD	BF10-6	US 78 (Hwy 78 East)	2.20	Commuter Bus, BRT, Local Bus, Express Bus
Lower Savannah	BF-1	US 1	15.89	Local Bus, Express Bus, Enhanced Bus/ITS

Strategic Corridor System Action Plan

LOW COUNTRY - YORK CORRIDOR (22 SEGMENTS – 240 MILES)

I. Introduction

The Low Country - York Corridor runs on US 17 from the intersection of SC 170 (Alternate) in Jasper County, north to US 321 in York County terminating at the State of North Carolina. The corridor encompasses three US routes (US 17, US 321 and US 21) and two State routes (SC 161 and SC 5). The corridor begins on US 17 and traverses ten counties: Jasper, Hampton, Allendale, Bamberg, Orangeburg, Lexington, Richland, Fairfield, Chester, and York, and spans a distance of 240.21 miles. The majority of the corridor (through seven counties) follows US 321; the portion of US 321 within the Low Country – York corridor was constructed in 1949. A map of the corridor is shown in Figure 1.

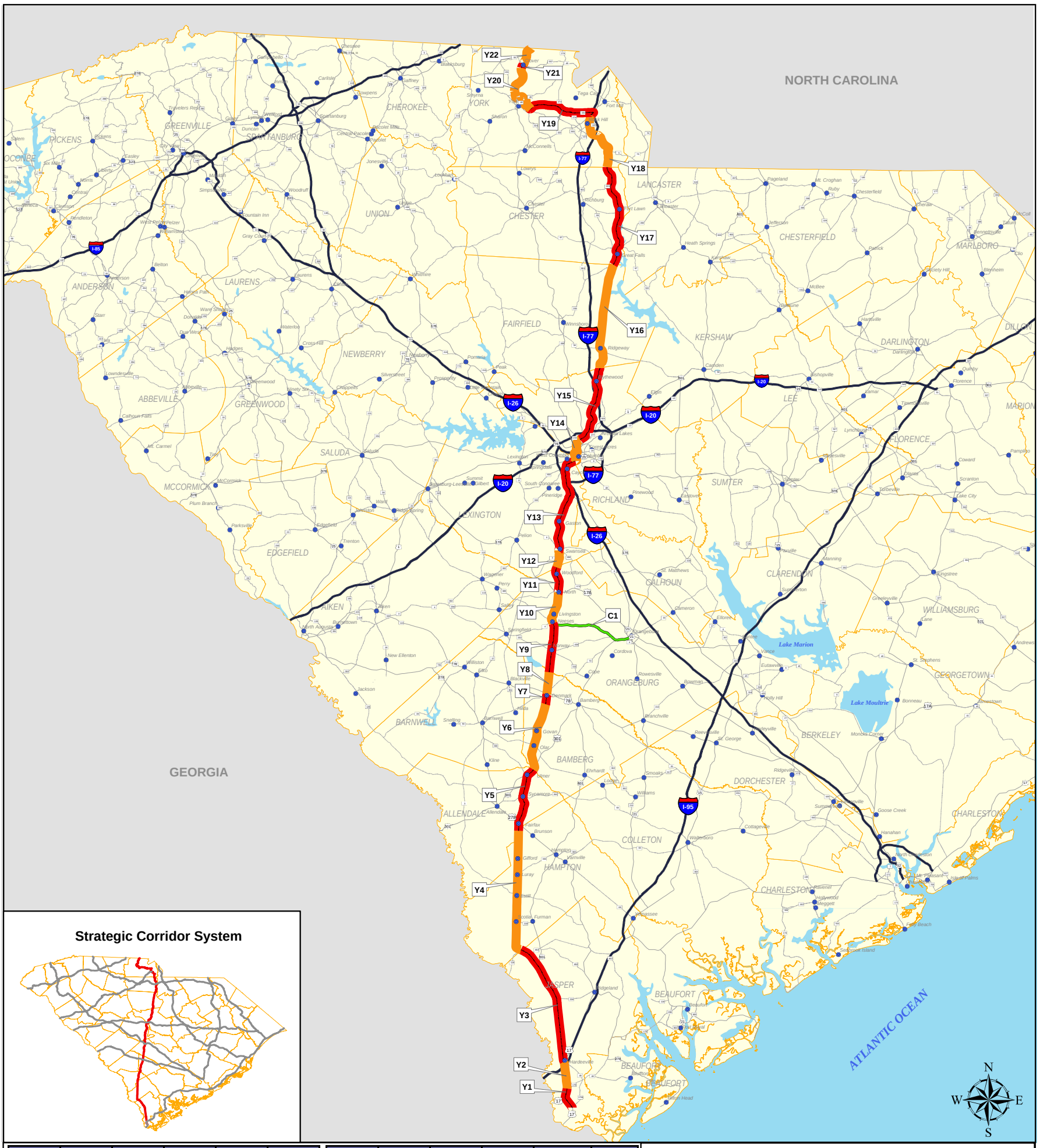
This corridor provides a direct route between the Low Country in the southern part of the state and the greater Charlotte, North Carolina metropolitan region. It directly serves the cities of Columbia and Rock Hill, as well as other smaller urbanized areas. The southern portion of the corridor (south of Columbia) provides an alternate to I-95 and I-26, while the northern portion of the corridor provides an alternative to I-77.

II. Corridor Issues

Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Lowcountry-York Corridor.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Figure 1. Lowcountry-York Corridor



Strategic Corridor System

Segment	County	Route	From	To	Length (miles)
Y-1	Jasper	US 17	SC 170A	SC 170	2.51
Y-2	Jasper	US 17	SC 170	US 17	7.13
Y-3	Jasper	US 321	US 17	Hampton County	24.48
Y-4	Hampton	US 321	Jasper County	Allendale County	24.02
Y-5	Allendale	US 321	Hampton County	Bamberg County	12.88
Y-6	Bamberg	US 321	Allendale County	Denmark	13.79
Y-7	Bamberg	US 321	Denmark	SC 70	1.7
Y-8	Bamberg	US 321	SC 70	Orangeburg County	4.98
Y-9	Orangeburg	US 321	Bamberg County	SC 4	9.34
Y-10	Orangeburg	US 321	SC 4	US 178	6.4
Y-11	Orangeburg	US 321	US 178	Lexington County	4.96

Segment	County	Route	From	To	Length (miles)
Y-12	Lexington	US 321	Orangeburg County	Swansea	3.53
Y-13	Lexington	US 321	Swansea	Richland County	19.68
Y-14	Richland	US 321	Lexington County	US 21	5.36
Y-15	Richland	US 21	US 321	Fairfield County	15.91
Y-16	Fairfield	US 21	Richland County	Chester County	21.14
Y-17	Chester	US 21	Fairfield County	York County	20.9
Y-18	York	US 21	Chester County	SC 161	12.86
Y-19	York	SC 161	I-77	SC 5	12.97
Y-20	York	SC 5	SC 161	US 321	4.24
Y-21	York	SC 321	SC 5	Clover	6.33
Y-22	York	US 321	Clover	NC State Line	5.02
C-1	Orangeburg	SC 4	US 321	Orangeburg	15.7

LOW COUNTRY - YORK CORRIDOR
US 17, US 321, US21, SC161, AND SC5

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

0 5 10 20 Miles

Source: SCDOT GIS Data
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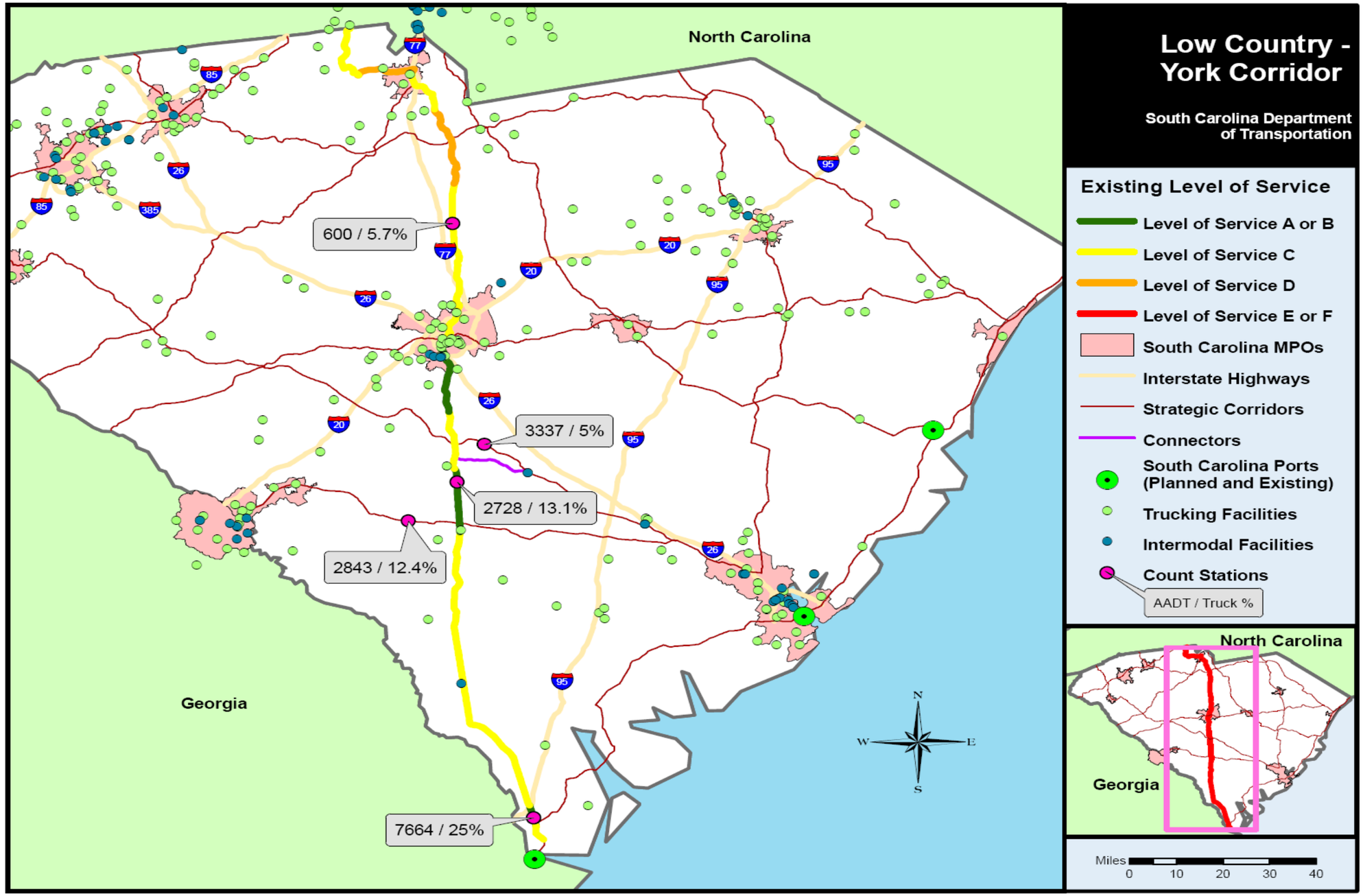
Figure 2. **Lowcountry-York Corridor Freight Characteristics**



Segment Y – 2: US 17
This segment is located along US 17 in Jasper County, from the intersection with SC 170 to the intersection with US 321 near Hardeeville. It is 7.13 miles long and passes through the Hardeeville city limits. This rural segment is a four-lane divided facility for its entire length. Although there are no identified congestion or safety issues along this segment, there is a very high percentage of trucks (25%). These trucks are likely leaving the Port of Savannah, crossing into South Carolina on SC 170. This route is the most convenient access to I-95 north. Currently, there are no identified operational constraints within this segment, but it should be closely monitored for increasing truck traffic, congestion, and safety issues.

Deficient Segment: Y-3 (US 321)
US-321 from US-17 to the Hampton County Line

This rural roadway is predominantly two lanes with a short section that contains 4 lanes. The road is designated as an evacuation route by the South Carolina Emergency Management Office, and is projected to operate at an LOS D between S-31 and S-169 and between SC 336/S-119 and US 601 by 2030. No safety issues are associated with this segment. The facility provides access for the Town of Hardeeville and surrounding areas to I-95 from US 17. There are a high number of trucks at the southern termini of the segment. These trucks are moving freight from the Port of Savannah to access I-95 north.

Identified Segment Issues:
- Future congestion
- Truck traffic in Hardeeville

Potential Solutions:
Although there are no identified safety issues based on crash rates, there are some intersections that need to have improvements made to increase their operational safety. Incorporated within these solutions are the provisions of bicycle and pedestrian facilities. In addition, any potential improvement must include an assessment of the sensitive environmental resources found within the segment. Three separate intersection improvements to address safety and operations.

The Lowcountry Council of Governments has identified a one mile section of widening at the city limits of Hardeeville. Those improvements should address some of the following recommended project needs.

Y 3-1:
Potential Project Type: Intersection improvement at SC 46 and S-31.
Project Limits: S-31 to S-413
Project Length (miles): 0.66

Y 3-2:

Potential Project Type:	Intersection improvement at US 321 and S-169
Project Limits:	S-413 to S-169
Project Length (miles):	2.82

Y 3-3:

Potential Project Type:	Intersection improvement at US 321 and US 601 and Widening to S-336/S-119
Project Limits:	S-336/S-119 to US 601
Project Length (miles):	7.16

Segment Y – 9: US 321
Bamberg County Line to SC 4

This rural, undivided segment is 9.34 miles in length and passes through the Norway town limits. This segment is predominately two lanes. There are no congestion or safety issues within this segment; however, there is a high percentage of trucks (13.1%). There are several trucking facilities located within the segment, which likely generates this high level of trucks. The segment is primarily rural and there are no apparent operational constraints for freight movement. However, because of the high truck usage, the segment should be monitored for increasing congestion and safety issues.

Deficient Segment: Y-12 (US 321)
US-321 from Orangeburg County Line to 4-lanes Section at mm 3.53

This is a rural two-lane undivided roadway located between the communities of Woodford and Swansea. A LOS C is expected to be maintained into the future year 2030 but safety concerns are raised with a crash rate that exceeds the average of 267.10 per 100 million miles at 1,262.40 per 100 million miles. Freight movement along this section is low at zero to five hundred thousand tons of freight per year.

Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, “The Roadmap to Safety” and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Deficient Segment: Y-13 (US 321)
US-321 from 4-lanes Section at mm 3.53 to Richland County Line

This is a rural and urban four-lane divided and undivided roadway located between the community of Swansea and the City of Columbia. The corridor crosses two interstates I-26 and I-77. A LOS D is expected to be maintained into the future year 2030 but safety concerns are raised with a crash rate that exceeds the average of 267.10 per 100 million miles at 1,520.26 per 100 million miles. Freight movement along this section is low at zero to five hundred thousand tons of freight per year.

Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Deficient Segment: Y-14 (US 321)
US-21/US 321 from Lexington County Line to the End of US 21 Overlap

This is a divided and undivided urban roadway that ranges from four to six lanes. It is located entirely within the I-77 loop of the City of Columbia and crosses I-126. Trucking facilities are located along or near the corridor and one to five million tons of freight per year are estimated to utilize this roadway. Portions of this segment are projected to operate at an LOS D between US 76 and US 176 and between US 21 and SC 277 by 2030. Safety issues are also associated with this segment with a crash rate that exceeds the statewide average of 267.10 per 100 million vehicle miles at 509.42 and 327.53 per 100 million vehicle miles.

There are 12 historic districts located on this segment. These include Allen University Historic District, Bellevue Historic District, Benedict College Historic District, Columbia Historic District I, Columbia Historic District II, Elmwood Park Historic District, Granby Mill Village Historic District, Old Campus District, Old Shandon Historic District, University Neighborhood Historic District, Waverly Historic District, and West Gervais Historic District.

This segment is primarily a constrained urban corridor due to the heavy development in the area. Transportation Demand Strategies; Congestion Management strategies; and Intelligent Transportation Systems should be explored to help manage/mitigate the congestion. Additional transit service should also be explored, including the opportunities for commuter based services, including the potential for fixed guideway transit. Additional potential transit operational strategies could include queue jumpers, bus pullouts and the exploration of transit oriented managed lanes. Pedestrian and bicycle facilities

and connectivity are also an important consideration. From the local land use perspective, redevelopment opportunities should include transit oriented applications. Sensitivity to the many historic areas along this corridor will be an essential part of any future or proposed plans.

Deficient Segment: Y-15 (US 21)
US-21 from US-321 to the Fairfield County Line

This urban roadway is predominantly two lanes with a short section that contains 4 lanes. It is located on the north side of the City of Columbia and crosses two interstates, I-20 and I-77. Trucking facilities are located along or near the corridor and one to five million tons of freight per year are estimated to utilize this roadway. Portions of this segment are projected to operate at an LOS F between S-2885/2886 and S-59 by 2030. Safety issues are associated with this segment with a crash rate that exceeds the statewide average of 267.10 per 100 million vehicle miles at 509.42 per 100 million vehicle miles.

Identified Segment Issues:

- Future congestion
- Truck traffic

Potential Solutions:

Capacity and safety improvements by widening to four lanes. Implement access management strategies, including an earth median and controlled access points for future development. This route will potentially serve as an interstate reliever.

Y 15-1:

Potential Project Type:	Widen to four lanes, access management, and bicycle and pedestrian facilities for Blythewood
Project Limits:	S-2885/S-2886 to S-59
Project Length (miles):	3.46

Deficient Segment: Y-18 (US 21)
US 21 from Chester County Line to SC 161

This is an urban two to six-lane divided and undivided roadway located between the Chester County line and the City of Rock Hill. The corridor crosses the interstate I-77. A range of LOS from B to C, depending on the number of lanes, is expected to be maintained into the future year 2030. However, safety concerns are raised with a crash rate of 536.09 per 100 million miles. Trucking

facilities are located along or near the corridor up to five million tons of freight per year are estimated to utilize this roadway.

The Corridor could potentially impact five historic districts. These are Brattonsville Historic District, Charlotte Avenue-Aiken Avenue Historic District, Marion Street Area Historic District, Reid Street-North Confederate Avenue Area Historic District, Rock Hill Downtown Historic District, and Winthrop College Historic District. Modifications to the Corridor could potentially impact these Districts.

Although no additional projects were identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Deficient Segment: Y-19
SC-161 from I-77 to SC-5

This road is urban predominantly two lanes with a short section that contains four lanes. It connects the City of Rock Hill to the City of York and provides access to I-77. It is estimated to carry one to five million tons of freight per year. This segment is projected to operate at an LOS D between SC 5 and SC 274 and F between S-1115 and S-30 by 2030. Safety issues are associated with this segment with a crash rate that exceeds the statewide average of 267.10 per 100 million vehicle miles at 497.59 per 100 million vehicle miles.

Depending on the extent of modifications to the Corridor, the Fort Mill Downtown Historic District could potentially be impacted.

Identified Segment Issues:

- Future congestion
- Safety
- Truck traffic
- Historic Areas

Potential Solutions:
Selected safety and intersection improvements such as dedicated turn lanes including possible bicycle and pedestrian facilities.

Y 19-1:

Potential Project Type:	Intersection Improvement
Project Limits:	SC-5 Business to SC-274
Project Length (miles):	6.19

Deficient Segment: Y-20 (SC 5)
SC-5 from SC-161 to US-321

This is a rural two-lane roadway that connects the City of York to the City of Clover. Freight movement along this section is expected to be low at zero to five hundred thousand tons of freight per year. This segment is projected to operate at an LOS F between US 321 and SC 161 by 2030. Safety issues are not associated with this segment.

Segment Y-20 runs directly through the City of York where any roadway modifications could potentially impact the York Historic District.

Identified Segment Issues:

- Future congestion
- Historic Areas

Potential Solutions:

Although there are no identified safety issues based on crash rates, capacity improvements can be met by widening to four lanes and the implementation of access management strategies, including an earth median and controlled access points for future development. This will provide an improved by-pass for the City of York. In addition, any potential improvement must include an assessment of the historic areas found within the segment.

Y 20-1:

Potential Project Type:	Widen to four lanes
Project Limits:	US-321 to SC-49
Project Length (miles):	2.21

Y 20-2:

Potential Project Type:	Widen to four lanes
Project Limits:	SC-49 to SC-161
Project Length (miles):	2.03

III. Lowcountry – York Connectors

Connectors have been identified as routes that link the Low Country – York Corridor to major activity centers, intermodal facilities are designated evacuation routes or provide links to the Interstate system. One (1) connector has been identified for this corridor. Detailed information regarding the connectors can be found in the Appendix.

Connector C-1: SC 4

This rural two-lane connector extends 16.24 miles from US 321 to US 178 in the City of Orangeburg. It provides an important connection from the Low Country – York Corridor to the urban area of Orangeburg.

IV. Transit in the Lowcountry York Corridor

The Lowcountry-York Corridor crosses four planning regions including the Lowcountry, Lower Savannah, Central Midlands, and Catawba. The transit screening for the corridors is explained in more detail in those Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Lower Savannah	Y11 to Y13	US 178/US 321	49.67	Local Bus
Central Midlands	Y15-1	US 21	3.46	Local Express Bus, Commuter Rail, BRT

Strategic Corridor System Action Plan

MID CAROLINA CORRIDOR (20 SEGMENTS – 230 MILES)

I. Introduction

The Mid Carolina Corridor runs on US 378 for its entire length from McCormick County to Horry County. The corridor traverses 11 counties: McCormick, Edgefield, Saluda, Lexington, Richland, Sumter, Clarendon, Florence, Williamsburg, Marion, and Horry Counties spanning a distance of 229.68 miles. Several other facilities overlap US 378 along this corridor, including: US 1, US 76, US 221, SC 39, SC 121, SC 6, US 176, SC 16 Connector, SC 764, US 301, SC 51, and SC 41. A map of the corridor is shown in Figure 1.

The Mid Carolina corridor provides a direct connection from the Old 96 district through the heart of South Carolina to the coastal region. US 378 was first constructed in the 1950s. The corridor serves and connects the growing central region of South Carolina and connects northeastern Georgia with the coast, directly serving the cities of McCormick, Saluda, Lexington, Columbia, Sumter, Lake City and Conway, as well as several smaller cities and towns.

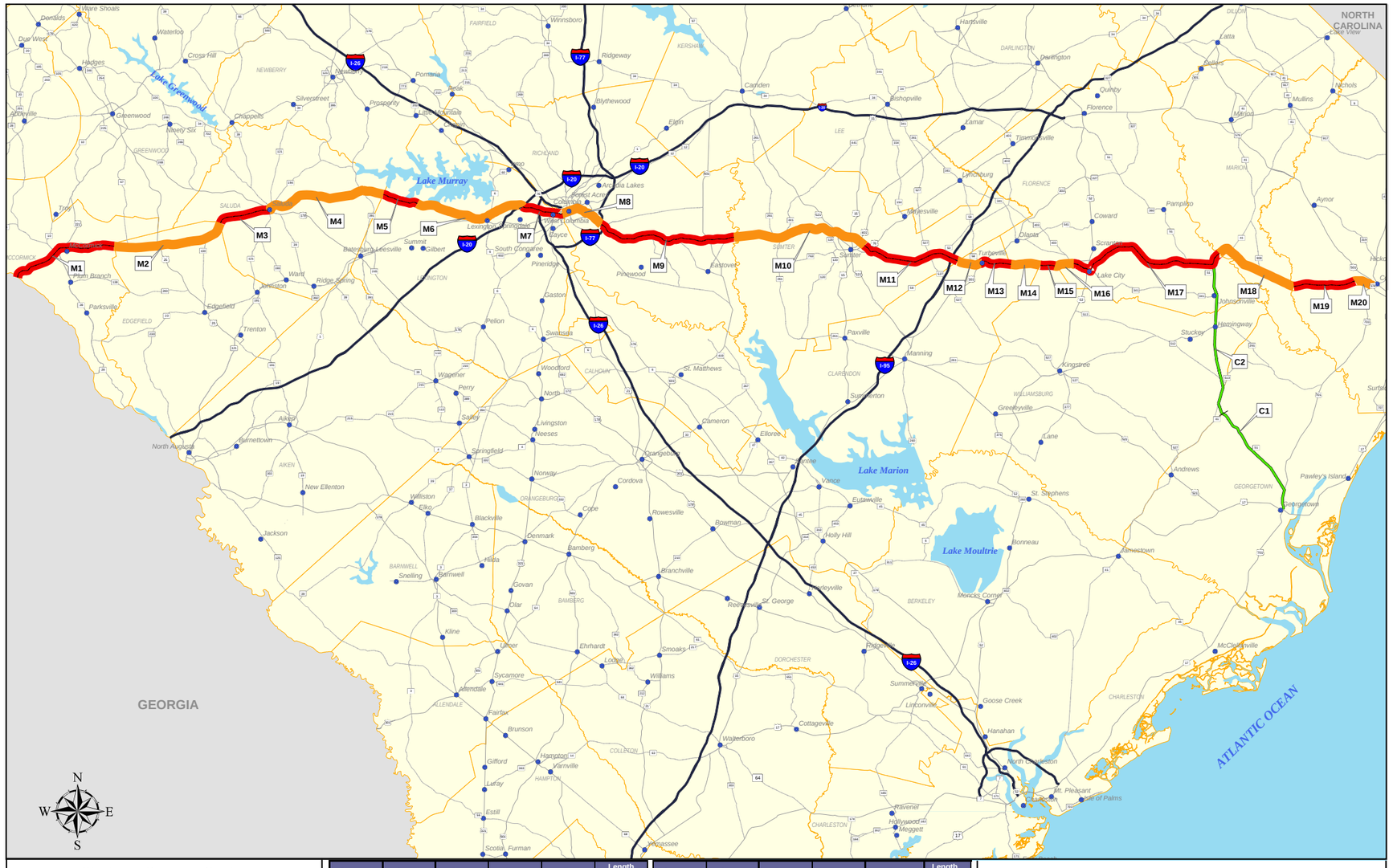
Assuming recent trends continue, the majority of the counties along the Mid Carolina Corridor are projected to experience moderate rates of population growth over the next several decades, further increasing personal and freight travel demands along this corridor. Saluda, Williamsburg and Marion Counties are the three counties of the 11 total along this corridor with decreasing population projected between years 2005 and 2030.

II. Corridor Issues

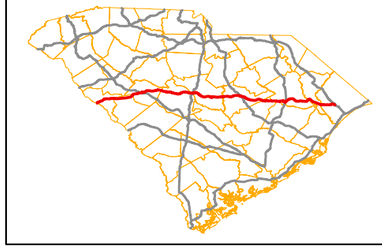
Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Mid Carolina Corridor.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication

Figure 1. Mid Carolina Corridor



Strategic Corridor System



Segment	County	Route	From	To	Length (miles)
M-1	McCormick	US 378	Georgia State Line	Edgefield County	15.53
M-2	Edgefield	US 378	McCormick County	Saluda County	16.18
M-3	Saluda	US 378	Edgefield County	Saluda City Limits	8.81
M-4	Saluda	US 378	Saluda City Limits	Lexington County	16.25
M-5	Lexington	US 378	Saluda County	4-Lane Section	5.05
M-6	Lexington	US 378	4-Lane Section	I-20	16.22
M-7	Lexington	US 378	I-20	Richland County	5.85
M-8	Richland	US 378	Lexington County	I-77	26.21
M-9	Richland	US 378	I-77	Sumter County	20.41
M-10	Sumter	US 378	Richland County	US 76 (End of overlap)	19.83
M-11	Sumter	US 378	US 76 (End of overlap)	Clarendon County	14.37

Segment	County	Route	From	To	Length (miles)
M-12	Clarendon	US 378	Sumter County	US 301	3.42
M-13	Clarendon	US 378	US 301	Florence County	4.52
M-14	Florence	US 378	Clarendon County	Williamsburg County	4.79
M-15	Williamsburg	US 378	Florence County	Florence County	1.88
M-16	Florence	US 378	Williamsburg County	US 378 Business	5.93
M-17	Florence	US 378	US 378 Business	Marion County	20.56
M-18	Marion	US 378	Florence County	Horry County	12.49
M-19	Horry	US 378	Marion County	4-Lane Section	8.53
M-20	Horry	US 378	4-Lane Section	US 701	2.85
C-1	Georgetown	SC 51	US 701	SC 41	17
C-2	Williamsburg	SC 41 / 51	SC 51	US 378	21.7

MID CAROLINA CORRIDOR
US 378

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

0 5 10 20 Miles

Source: SCDOT GIS Data
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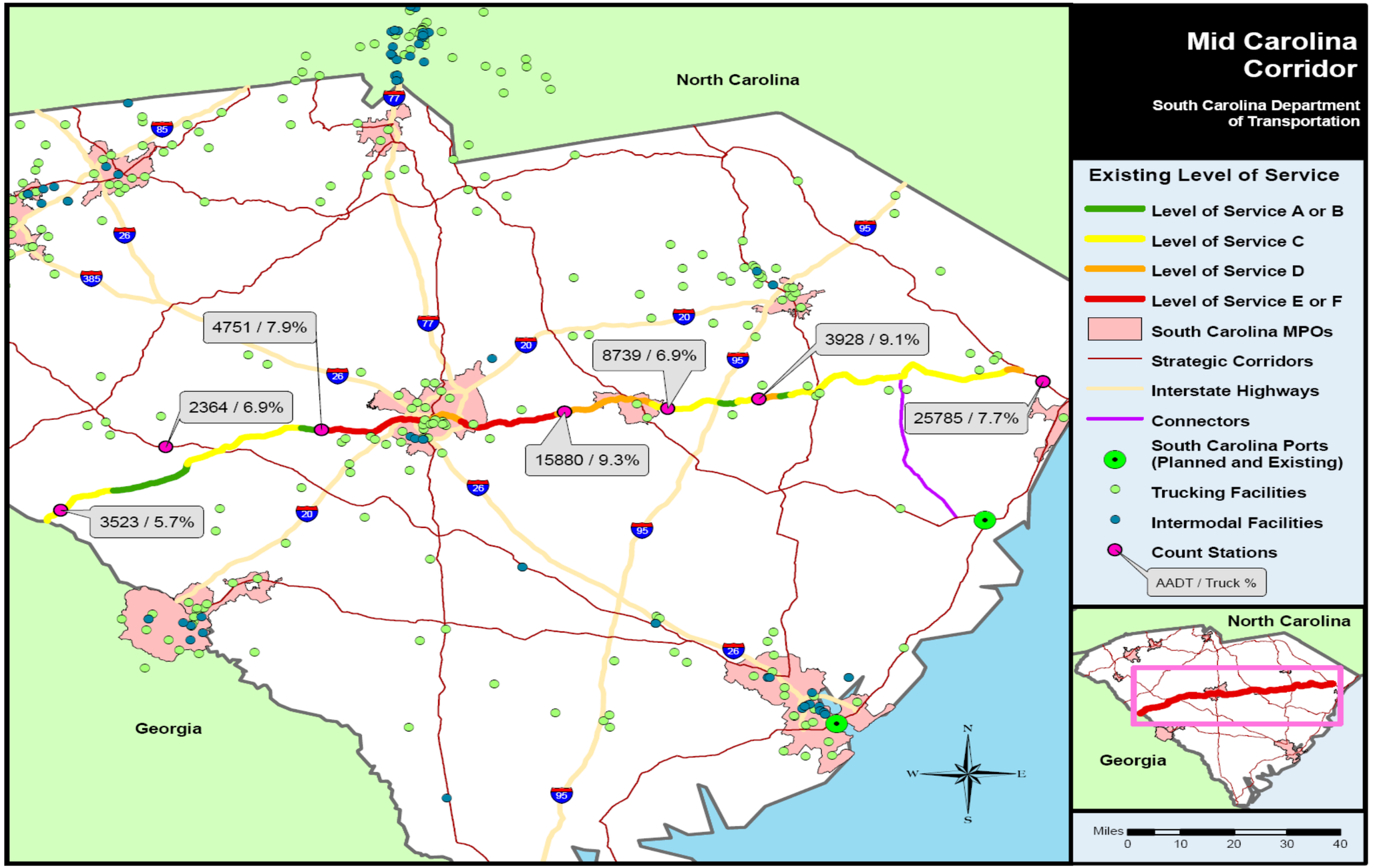
Figure 1. Mid Carolina Corridor Freight Characteristics



that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Deficient Segment: M-5 (US 378)
Saluda County to S-24

This undivided, two-lane facility has a safety issue in this segment, with the crash rate higher than the system average crash rate. This segment is rural in nature, with very little development, and does not carry a high level of traffic. The crash rate is likely due to excessive speeds in this rural and undeveloped segment.

Identified Segment Issues:

- Safety

Potential Solutions:

Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Deficient Segment: M-6 (US 378)
S-24 to I-20

This facility, which ranges between 2 and 4 lanes, is currently congested, operating at LOS D – F on the majority of the sections, and the entire segment is projected to operate at LOS F by 2030. There is also a safety issue in this segment, with the crash rate higher than the system average crash rate.

This segment serves the increased growth on the west side of the Columbia, South Carolina metropolitan area and the Town of Lexington, which is one of the more rapidly developing areas in the metropolitan area, as well as the earlier suburban growth that occurred in the 1970's through the 1990's. This segment carries a large amount of commuter traffic into the economic center of Columbia. There are also a number of trucks utilizing this facility, with a number of trucking facilities located in the vicinity of US 378 and I-20.

Identified Segment Issues:

- Congestion
- Truck traffic
- Safety

Potential Solutions:

Potential solutions include the implementation of access management strategies to enhance the functional capacity of existing facility. The provision of bicycle and pedestrian facilities should also be incorporated into the solution. Context sensitive design techniques are also a critical element in maintaining the character of the Lexington area, particularly through the downtown area. Commuter based transit service should also be explored.

M6-1

Potential Project Type:	Access Management
Project Limits:	US 1/US 52 (West Main Street) to SC 6 (North Lake Dr)
Project Length (miles):	0.67

M6-2

Potential Project Type:	Access Management
Project Limits:	SC 6 (North Lake Drive) to S-6/S-392
Project Length (miles):	0.24

M6-3

Potential Project Type:	Access Management
Project Limits:	SC 6/S-392 (North Lake Drive) to S-485 (Old Cherokee Road)
Project Length (miles):	0.8

M6-4

Potential Project Type:	Access Management
Project Limits:	S-485 (Old Cherokee Road) to S-28 (Hope Ferry Road)
Project Length (miles):	1.15

M6-5

Potential Project Type:	Access Management
Project Limits:	S-28 (Hope Ferry Road) to I-20
Project Length (miles):	3.22

Deficient Segment: M-7 (US 378)
I-20 to US 1

This divided, four-lane facility is currently congested, with portions currently operating at LOS ranging from D to F, and the entire segment projected to operate within that range by 2030. There is also a safety issue in this segment, with the crash rate higher than the system average crash rate.

This urban segment is heavily developed with commercial uses adjacent to the facility and provides access to the residential development in the area. The facility serves the City of West Columbia and is a heavily used facility, carrying a mix of traffic, including local and commuter trips and trucks.

Identified Segment Issues:

- Future congestion
- Safety

Potential Solutions:

Because of the dense development in the area, access management strategies can be implemented to increase the functional capacity of the facility. Bicycle and pedestrian facilities should be incorporated into the solutions. Local and commuter based transit service should be explored.

M7-1

Potential Project Type:	Access Management
Project Limits:	I-20 to S-70
Project Length (miles):	1.39

M7-2

Potential Project Type:	Access Management
Project Limits:	S-70 to I-26
Project Length (miles):	3.84

M7-3

Potential Project Type:	Access Management
Project Limits:	I-26 to S-285
Project Length (miles):	0.85

Deficient Segment: M-8 (US 378)
SC 280 (Laurel Bay Road) to S -71 (Clarendon Road)

This divided, 4 lane facility is currently congested with portions currently operating at LOS ranging from D to F, and the entire segment is projected to be in that range by 2030. There is also a safety issue in this segment, with the crash rate higher than the system average crash rate.

The highly developed segment serves the downtown area of Columbia, South Carolina, and provides direct access to the University of South Carolina. Context sensitive design strategies should be employed to enhance and maintain the character of the area and to avoid any adverse impacts on the existing community. In addition, the facility also provides access Ft. Jackson, a major US Army installation.

Identified Segment Issues:

- Congestion
- Safety
- Historic districts
- Military base access

Potential Solutions:

Access management strategies should be utilized to enhance the functional capacity of the facility, while ensuring no adverse impacts on the community character and historic areas. Enhanced bicycle and pedestrian facilities are a major element for incorporation into this segment, and improvements to existing transit service should be explored.

M8-1

Potential Project Type:	Access Management
Project Limits:	US 378 (Millwood Avenue) to SC 16 (Beltline Blvd)
Project Length (miles):	1.38

M8-2

Potential Project Type:	Access Management
Project Limits:	SC 16 (Beltline Blvd) to SC 262 (Leesburg Road)
Project Length (miles):	1.36

Deficient Segment: M-9 (US 278)
I-77 to Sumter County

This segment is currently congested, operating at LOS D – E and with one section operating at LOS F. The segment will continue to be congested, with a LOS D – F projected for all sections by 2030. The crash rate on this segment is also higher than the strategic system crash rate, posing safety concerns. This segment also carries a high percentage of truck traffic. This segment is part of the major connection between Sumter and Columbia and serves the growing suburban development east of Columbia. The facility also provides access to McEntire Air National Guard Station.

Identified Segment Issues:

- Congestion
- Safety
- Military base access

Potential Solutions:

Access management strategies, including interparcel connections, and capacity enhancements should be utilized to address the congestion and safety issues. These strategies should also incorporate bicycle and pedestrian facilities. Increased local transit service and commuter based transit service should also be explored.

M9-1

Potential Project Type:	Access Management
Project Limits:	SC 262 (Leesburg Road) to East Exchange Blvd.
Project Length (miles):	0.40

M9-2

Potential Project Type:	Capacity improvements and access management
Project Limits:	East Exchange Blvd. to S-50 (Atlas Road)
Project Length (miles):	0.60

M9-3

Potential Project Type:	Access Management
Project Limits:	S-50 (Atlas Road) to S-88 (Hazelwood Road)
Project Length (miles):	1.16

M9-4

Potential Project Type:	Access Management
Project Limits:	S-88 to L-905
Project Length (miles):	0.79

M9-5

Potential Project Type:	Access Management
Project Limits:	L-905 SC 769 (Congaree Road)
Project Length (miles):	4.67

Deficient Segment: M-10 (US 378)
Richland County to End of Overlap with US 76

This facility currently has sections operating at LOS D and is projected to be congested, with sections operating at LOS F by 2030. This segment also carries a high percentage of truck traffic. This segment is part of the major connection

between Sumter and Columbia and provides access to Shaw Air Force Base. There are no identified safety issues within this segment.

This segment also carries a relatively high amount of truck traffic, with a truck percentage of 9.3%. There are trucking facilities located between the City of Sumter and the City of Columbia, with the majority of these facilities concentrated in the Columbia area. There are some operational constraints that should be addressed to enhance the efficient movement of freight.

Identified Segment Issues:

- Congestion
- Military base access
- Truck Traffic

Potential Solutions:

Operational improvements and access management strategies, including interparcel connections, should be used to enhance the functional capacity of existing facility. Specific operational improvements include a one-lane flyover for left-turn movements at the intersections of US 76/378 and US 378/US 521. These operational improvements will address both congestion and freight movement.

M10-1

Potential Project Type:	Operational/Access Management
Project Limits:	SC 120/S-911 (Alice Drive) to US 521
Project Length (miles):	0.44

The Sumter Area MPO has identified an improvement on US 378 from Carter Road to the US 76 Split. This would improve parts of Segments M-10 and M-11 in the City of Sumter.

Deficient Segments:

M-14: Clarendon County Line to Williamsburg County Line
M-17: US 378 Business to Marion County
M-18: Florence County Line to Horry County Line

Utilizing the traffic analysis process, these segments are currently operating at a congested level and are projected to continue with increased congestion by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. There are no safety issues identified and the truck traffic is not a significant issue. Based on these conditions, no projects were identified for these segments.

Deficient Segment:
M-19: Marion County Line to 4-Lane Segment
M-20: 4-Lane Section to US 701

Utilizing the traffic analysis process, these segments are currently operating at a congested level and are projected to continue with increased congestion by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for these segments.

These two segments do exhibit a crash rate that is higher than the system average. Although no specific project was identified to address safety, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

The Waccamaw Council of Governments has identified the widening of the Mid Carolina Corridor (US 378) between Interstate 95 and Conway as a future project, for which there is currently no funding. This improvement would encompass Segments M-12 through M-20 of this corridor.

III. Mid Carolina Connectors

Connectors have been identified as routes that link the Mid-Carolina Corridor to major activity centers, intermodal facilities are designated evacuation routes or provide links to the Interstate system. Two (2) connectors have been identified for this corridor. Detailed information regarding the connectors can be found in the Appendix.

Connector C-1: SC 51
This rural connector is located along SC 51 in Georgetown County. It extends 15.77 miles between US 701 and SC 41 at the Georgetown-Williamsburg County line. This facility serves as an important connection to the Port of Georgetown and is also an important emergency evacuation facility.

Connector C-2: SC 41
This rural connector is located along SC 41 in Williamsburg and Florence Counties and travels from SC 51 to US 378. It is 20 miles in length and combines with Connector C-1 to provide the direct connection to US 378 from the Port of Georgetown and also combines with Connector C-1 as an important emergency evacuation facility.

IV. Transit in the Mid Carolina Corridor

The Mid Carolina Corridor crosses five planning regions including Upper Savannah, Central Midlands, Santee-Lynches, Pee Dee, and Waccamaw. The transit screening for the corridors is explained in more detail in the Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Waccamaw	M16 to M20	US 378	57.03	Express Bus, Local Bus, Enhanced Bus/ITS
Santee Lynches	M8 to M10	US 378	66.45	Express Bus, Local Bus, BRT, Commuter Rail
Upper Savannah	M4 to M7	US 378	27.12	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M6-1	US 378 (Columbia Ave)	0.67	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M6-2	US 378 (North Lake Dr)	0.24	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M6-3	US 378 (Sunset Blvd)	0.80	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M6-4	US 378 (Sunset Blvd)	1.15	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M6-5	US 378 (Sunset Blvd)	3.22	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M6-6	US 378 (Sunset Blvd)	1.39	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M7-1	US 378 (Sunset Blvd)	3.84	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M7-2	US 378 (Sunset Blvd)	0.85	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M7-3	US 378 (Sunset Blvd)	1.38	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M8-1	US 1 (Devine Street)	1.38	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M8-2	US 1 (Garners Ferry Rd)	0.40	Local Bus, Express Bus, BRT, Commuter Rail
Central Midlands	M9-1	US 378 (Garners Ferry Rd)	27.12	Local Bus, Express Bus, BRT, Commuter Rail

Strategic Corridor System Action Plan

MOUNTAINS TO THE SEA CORRIDOR (26 SEGMENTS – 233.66 MILES)

I. Introduction

The Mountains to the Sea Corridor runs on US 178 from the North Carolina State Line in Pickens County to US 78 in Dorchester County. The corridor is entirely contained on US 178, and it traverses eight counties: Pickens, Anderson, Abbeville, Greenwood, Saluda, Lexington, Orangeburg, and Dorchester. Several other facilities overlap US 178 along this corridor, including: US 76, SC 28, US 25, SC 121, SC 39, US 378 and US 21. A map of the corridor is shown in Figure 1.

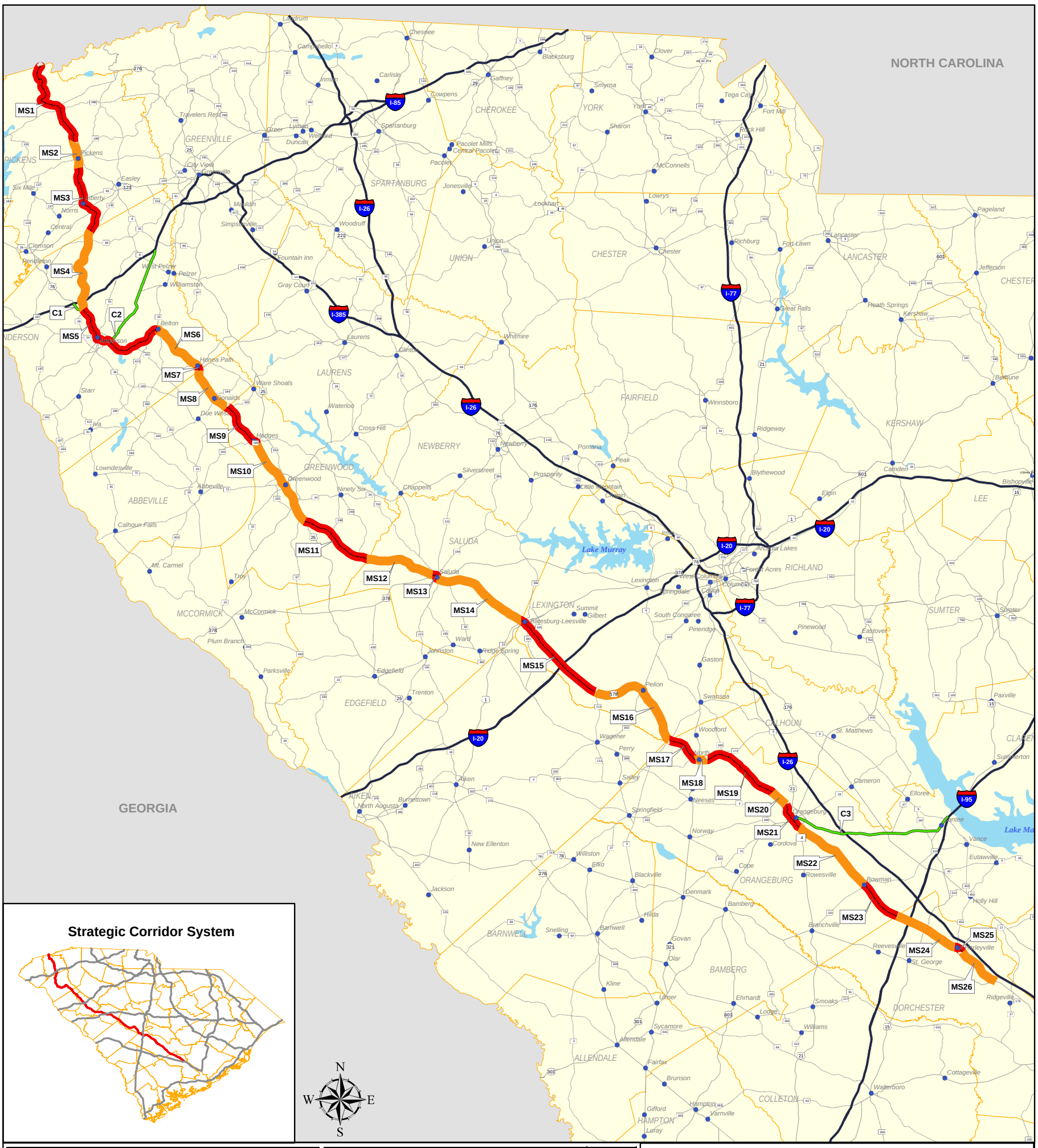
US 178 was constructed in the early 1930s providing a direct route between the upstate mountains of South Carolina to the coastal region near Charleston. It directly serves the smaller cities and towns of Pickens, Liberty, Anderson, Honea Path, Donalds, Hodges, Greenwood, Saluda, Batesburg – Leesville, Pelion, North, Orangeburg, Bowman and Harleyville. The corridor provides an alternate route to I-26 which runs parallel and to the north of the corridor. Several counties along this corridor (including Anderson and Lexington) are currently, and are projected to continue to be among the most populated counties in the State through year 2030.

II. Corridor Issues

Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening; the transit screening; and coordination with existing plans.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment. Truck percentages in this corridor range only from 1.4% near the North Carolina State line to a high of 7.8% north of I-20.

Figure 1. Mountains to the Sea Corridor



Segment	County	Route	From	To	Length (miles)
MS-1	Pickens	US 178	NC State Line	City of Pickens	17.1
MS-2	Pickens	US 178	City of Pickens	City of Pickens	2.8
MS-3	Pickens	US 178	City of Pickens	Anderson County	11.58
MS-4	Anderson	US 178	Pickens County	US 76	13.84
MS-5	Anderson	US 178/ US 76 (overlap)	US 76 (overlap)	SC 20 (Belton)	15.17
MS-6	Anderson	US 178/ US 76 (overlap)	SC 20	US 76 (Honea Path)	8.31
MS-7	Anderson	US 178	US 76 (end of overlap)	Abbeville County	0.74
MS-8	Abbeville	US 178	Anderson County	Greenwood County	7.28
MS-9	Greenwood	US 178	Abbeville County	US 25	7.43
MS-10	Greenwood	US 178/ US 25 (overlap)	US 25	US 25	15.73
MS-11	Greenwood	US 178	US 25 (end of overlap)	Saluda County	11.43
MS-12	Saluda	US 178	Greenwood County	SC 121	10.62
MS-13	Saluda	US 178	SC 121	SC 121	0.55
MS-14	Saluda	US 178	SC 121	Lexington County	14.48

Segment	County	Route	From	To	Length (miles)
MS-15	Lexington	US 178	Saluda County	SC 113	15.68
MS-16	Lexington	US 178	SC 113	Orangeburg County	16.13
MS-17	Orangeburg	US 178	Lexington County	City of North	5.3
MS-18	Orangeburg	US 178	City of North	City of North	0.8
MS-19	Orangeburg	US 178	City of North	4-Lane Section	12.8
MS-20	Orangeburg	US 178	4-Lane Section	US 21	3.54
MS-21	Orangeburg	US 178	US 21	US 21 (end of overlap)	4.36
MS-22	Orangeburg	US 178	US 21	Bowman	13.76
MS-23	Orangeburg	US 178	Bowman	Dorchester County	6.43
MS-24	Dorchester	US 178	Orangeburg County	Harleyville	9.4
MS-25	Dorchester	US 178	Harleyville	Harleyville	1.78
MS-26	Dorchester	US 178	Harleyville	US 78	6.62
C-1	Anderson	US 76	I-85	US 78	2.46
C-2	Anderson	US 29	US 78	I-85	16.09
C-3	Orangeburg	US 301	US 178 Bus	I-95	23.5

Mountains to the Sea Corridor
US 178

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

Planning SCDOT Environmental

TranSystems URS RS&H

0 5 10 20 Miles

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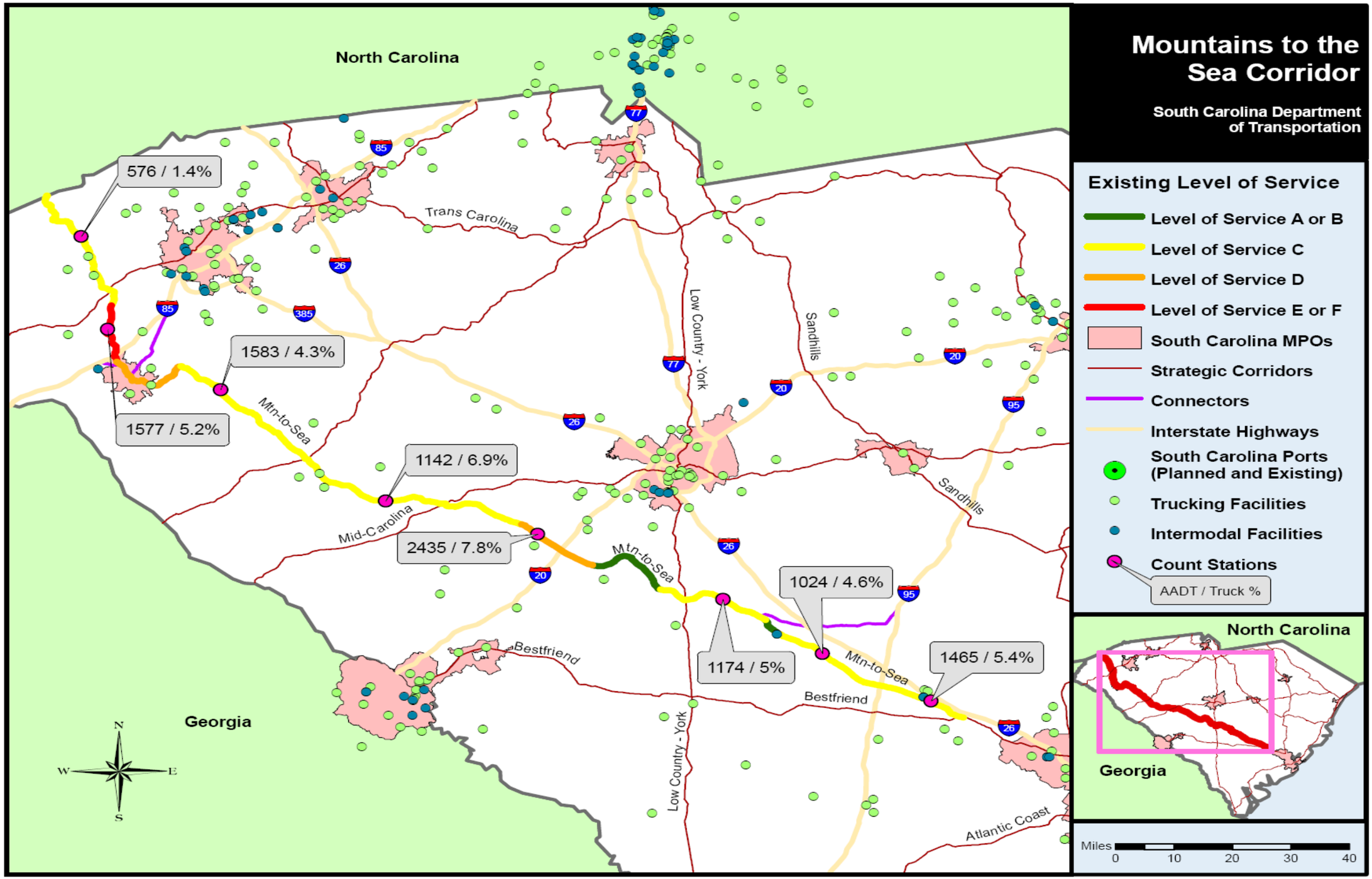
Figure 1. Mountains to the Sea Corridor Freight Characteristics



Deficient Segment: MS-3 (US 178)
City of Pickens to Anderson County

A portion of this segment, from S-130 to SC 183, is a four lane facility. The remaining undivided, two-lane facility is projected to operate LOS D by 2030. The crash rate along this segment (143.22) does not exceed the average for the strategic network (267.10).

Although the level of service will worsen from its current LOS C by 2030, the problems along this section of the corridor are more operational and flow issues at the major intersections. Many of the governmental services provided by Pickens County are located in the City of Pickens, therefore this area is the central hub of the County. Improvements along this segment are limited to intersection improvements, including the addition of left-turn lanes and acceleration and deceleration lanes.

Identified Segment Issues:

- Future congestion
- Operational issues at major intersections
- Central location for County services

Potential Solutions:

Operational improvements are recommended to improve the efficiency of the facility and to address the congestion issues. These improvements include the Installation of left-turn lanes, as well as acceleration and deceleration lanes.

Potential Project Type:	Operational Improvement; intersection improvements
Project Limits:	S-304 to S-224
Project Length (miles):	1.30

Deficient Segment: MS-4 (US 178)
Pickens County Line to US 76

This two-lane, undivided section of the corridor currently operates, and is expected to continue to operate, at LOS F. The crash rate along this segment (156.93) does not exceed the average for the strategic network (267.10).

The 1.35 mile section of US 178 provides direct access to I-85 for the growing residential population in the Lake Hartwell area. There are a number of trucking facilities located in the vicinity and this route provides an alternative access to I-85 for trucks leaving the Anderson metropolitan area.

Identified Segment Issues:

- Current and future congestion
- High residential growth area
- Alternative access to I-85

Potential Solutions:

Capacity improvements, which include widening the facility to 4 lanes, are recommended to alleviate the current and future capacity issues. Due to the residential character of the immediate area, bicycle and pedestrian facilities should be included in the overall plan for this segment.

Potential Project Type:	Capacity Improvement, widening to 4 lanes
Project Limits:	I-85 to SC 28
Project Length (miles):	1.35

Deficient Segment: MS-17 (US 178)
Lexington County Line to US 321

This two-lane undivided segment of the corridor is expected to operate betwen LOS D to F by 2030. The crash rate along this segment (374.08) exceeds the average for the strategic network (267.10).

Currently, this segment is characterized mostly by rural development and farmland. Growth in the rural areas of the state is expected and future improvements on the corridors will be needed.

Identified Segment Issues:

- Future congestion
- Safety

Potential Solutions:

In order to be proactive in addressing future capacity needs, right-of-way preservation for future widening is suggested, particularly with the undeveloped nature of the adjacent properties. Any right-of-way preservation should include enough property for the development of bicycle and pedestrian amenities. Local land use policies should include access management strategies to ensure capacity is maintained.

Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, “The Roadmap to Safety” and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

MS 17-1

Potential Project Type:	Capacity Improvement (ROW Preservation)
Project Limits:	Lexington County Line to S-1206
Project Length (miles):	2.21

MS 17-2

Potential Project Type:	Capacity Improvement (ROW Preservation)
Project Limits:	S-1206 to SC 394/S-209
Project Length (miles):	2.51

Deficient Segment: MS-19 (US 178)
S-943 to S-61

This two-lane undivided segment of the corridor is projected to operate at LOS D by 2030. The crash rate along this segment (374.08) exceeds the average for the strategic network (267.10).

Due to the expected growth in this region and the increasing traffic on I-26, this corridor will provide parallel relief to the interstate between Orangeburg and Columbia. The land uses north of the City of Orangeburg are mostly residential and that land use pattern is expected to continue. The further suburbanization of the Columbia metro area will also put continued pressure on the routes in this area.

Identified Segment Issues:

- Future congestion
- Safety
- Expected residential development

Potential Solutions:

Capacity improvements which include widening to four lanes are recommended to alleviate future capacity issues. The widening of this segment should incorporate bicycle and pedestrian amenities as well as access management strategies.

Potential Project Type:	Capacity Improvement, widening to four lanes
Project Limits:	S-60 to S-61
Project Length (miles):	5.32

Deficient Segment: MS-20 (US 178)
S-61 to US 178

This four-lane divided segment of the corridor is projected to operate at LOS F by 2030. The crash rate along this segment (374.08) exceeds the average for the strategic network (267.10).

The Mountains to the Sea corridor serves as an interstate reliever in this region of the state. Truck and personal vehicle traffic on I-26 continues to grow beyond the capacity of the Interstate system. This corridor, already connecting several communities in this region, could provide some of the relief needed on the over-burdened Interstates. In addition, this segment is an important element of the transportation system serving the Orangeburg area.

Identified Segment Issues:

- Future congestion
- Safety

Potential Solutions:

Operational improvements and access management strategies are recommended to improve operational efficiency and safety. Any improvements should incorporate bicycle and pedestrian amenities. Context sensitive design techniques should be utilized in order to maintain and enhance the sense of community within this corridor. In addition, transit service opportunities should be explored.

Potential Project Type:	Operational Improvement, access management
Project Limits:	US 178 Business to US 21/178
Project Length (miles):	1.19

Deficient Segment: MS-21 (US 178)
US 178 to US 178 Connector

This four-lane divided segment of the corridor is projected to operate at LOS F by 2030. The crash rate along this segment (106.16) does not exceed the average for the strategic network (267.10).

The Mountains to the Sea corridor serves as an interstate reliever in this region of the state. Truck and personal vehicle traffic on I-26 continues to grow beyond the capacity of the Interstates system. This corridor, in addition to being a regional facility, is an important element of the transportation system serving the City of Orangeburg. In addition, transit service opportunities should be explored.

Identified Segment Issues:

- Future congestion
- Potential historic district impacts

Potential Solutions:

Operational improvements and access management strategies are recommended to improve operational efficiency and safety. Any

improvements should incorporate bicycle and pedestrian amenities. Context sensitive design techniques should be utilized in order to maintain and enhance the sense of community within this corridor.

Potential Project Type:	Operational Improvement, access management
Project Limits:	S-94 to US 178/178 Connector
Project Length (miles):	0.37

III. Mountains to the Sea Connectors

Connectors have been identified as routes that link the Mountains to the Sea Corridor to major activity centers and intermodal facilities, are designated evacuation routes or provide links to the Interstate system. Three (3) connectors have been identified for this corridor.

Connector C-1: US 76
This 2.46 mile urban connector provides direct access from the corridor to I-85. Additionally, this connector directly links to the U-1 Connector for the Upstate Corridor. This linkage is very important as it provides direct access from the Mountains to the Sea Corridor to the Clemson University community. The Anderson and Clemson communities have previously been connected through their regional transit service.

Connector C-2: US 29
This rural highway runs 16.09 miles and provides access to I-85 north of the City of Anderson. For trucks and personal vehicles with Greenville and Spartanburg destinations, this route provides a more direct route than the corridor. Land uses along this route include residential, commercial and industrial uses. Although the southern portion of the connector operates as a local road, the northern portion is divided and provides limited-access.

Connector C-3: US 301
This 23.5 mile connector runs eastward from the City of Orangeburg intersecting with both I-26 and I-95. Between Orangeburg and I-26, the land uses are more urban in nature. Residential and commercial uses dominate this section of the connector. East of I-26 to the connector's end at I-95, the land uses are predominately agricultural. This connector provides some traffic relief to the overly congested interchange of I-26 and I-95.

IV. Transit in the Mountains to the Sea Corridor

The Mountains to the Sea Corridor crosses five planning regions including, Appalachian, Upper Savannah, Central Midlands, Lower Savannah, and, Berkeley-Charleston-Dorchester. The transit screening for the corridors is explained in more detail in the Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Lower Savannah	MS20-1	US 178 (Broughton/North Rd)	1.19	Express Bus, Local Bus, Enhanced Bus/ITS
Lower Savannah	MS18 to MS 21	US 178/US 321	49.67	Local Bus
Upper Savannah	MS 6 to MS13	US 178/US 76/US 25	113.68	Local Bus

Strategic Corridor System Action Plan

OLDE ENGLISH – OLDE 96 CORRIDOR (13 SEGMENTS – 127 MILES)

I. Introduction

The Olde English – Olde 96 Corridor travels along SC 72 from the State of Georgia line in Abbeville County to I-77 in York County. The entire corridor follows SC 72 and traverses seven counties: Abbeville, Greenwood, Laurens, Newberry, Union, Chester and York spanning a distance of 127.32 miles. Several other facilities overlap SC 72 along this corridor, including: US 25, US 221, US 321, SC 9, SC 121, US 21 and SC 5. A map of the corridor is shown in Figure 1.

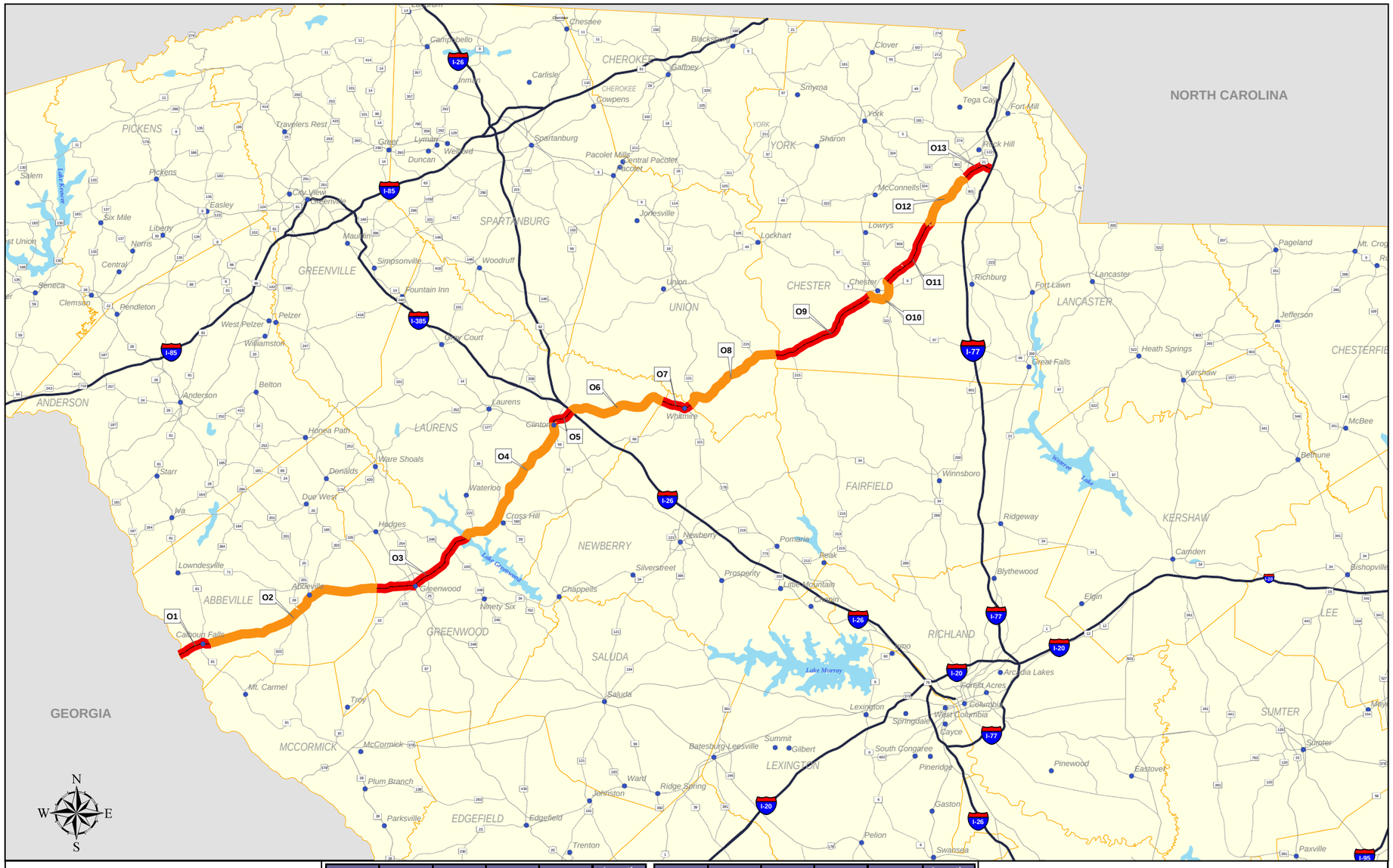
The Olde English District is known to encompass central South Carolina counties of Chesterfield, Kershaw, Fairfield, Lancaster, Chester, Union and York. The Old English District has historic roots dating back to both the American Revolution and the Civil War. The Olde 96 district represents the Counties of Abbeville, Edgefield, Greenwood, Laurens, and McCormick, and is known for its recreational amenities including Lake Greenwood and Strom Thurmond Lake, as well as numerous cultural and historic resources.

SC 72 along the Olde English – Olde 96 corridor was first paved in the 1930s as part of the development of a highway to connect Atlanta, GA with Raleigh, North Carolina. There have been studies conducted to identify enhancements to the corridor designed to induce growth and development. Growth in the region near the Georgia state line has not met expectations even with the construction of Lake Strom Thurmond in the 1970s. The corridor directly serves the cities of Calhoun Falls, Abbeville, Greenwood, Clinton, Whitmire, Chester, and Rock Hill as well as several smaller cities and towns.

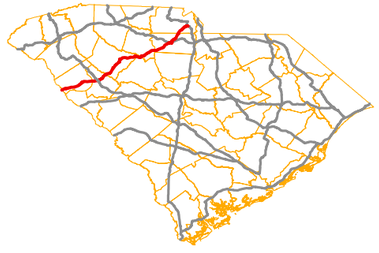
The corridor provides a direct connection between northeastern Georgia (including Athens) and Charlotte, North Carolina. The corridor runs almost parallel to I-85, which lies approximately 40 miles to north. Trucking is important on this corridor with 17.6% of the vehicles constituting truck traffic in the section just north of I-26 in Laurens and Newberry Counties.

Assuming recent trends continue, the majority of the counties along the Olde English – Olde 96 corridor are projected to experience moderate rates of population growth over the next several decades, further increasing personal and freight travel demands along this critical corridor. Union County is the only county of the seven along this corridor with a decreasing population projected between years 2005 and 2030.

Figure 1. Olde English-Olde 96 Corridor



Strategic Corridor System



Segment	County	Route	From	To	Length (miles)
O-1	Abbeville	SC 72	Georgia State Line	City of Abbeville	18.1
O-2	Abbeville	SC 72	City of Abbeville	Greenwood County	7.82
O-3	Greenwood	SC 72 / US 25 / US 221 (overlap)	Abbeville County	Laurens County	13.67
O-4	Laurens	SC 72 / US 221 (overlap)	Greenwood County	Clinton	15.37
O-5	Laurens	SC 72	Clinton	I-26	6.06
O-6	Laurens	SC 72	I-26	Newberry County	11.98
O-7	Newberry	SC 72	Laurens County	Union County	3.65

Segment	County	Route	From	To	Length (miles)
O-8	Union	SC 72	Newberry County	Chester County	12.9
O-9	Chester	SC 72	Union County	US 321	13.73
O-10	Chester	SC 72 / US 321 / SC 9 (overlap)	US 321	SC 97	3.06
O-11	Chester	SC 72	SC 97	York County	9.81
O-12	York	SC 72 / SC 121 (overlap)	Chester County	End of SC 121 overlap	7
O-13	York	SC 121	SC 72	US 21	4.17
		US 21	SC 121	I-77	

OLDE ENGLISH - OLDE 96 CORRIDOR
SC 72

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

0 5 10 20 Miles

Source: SCDOT GIS Data
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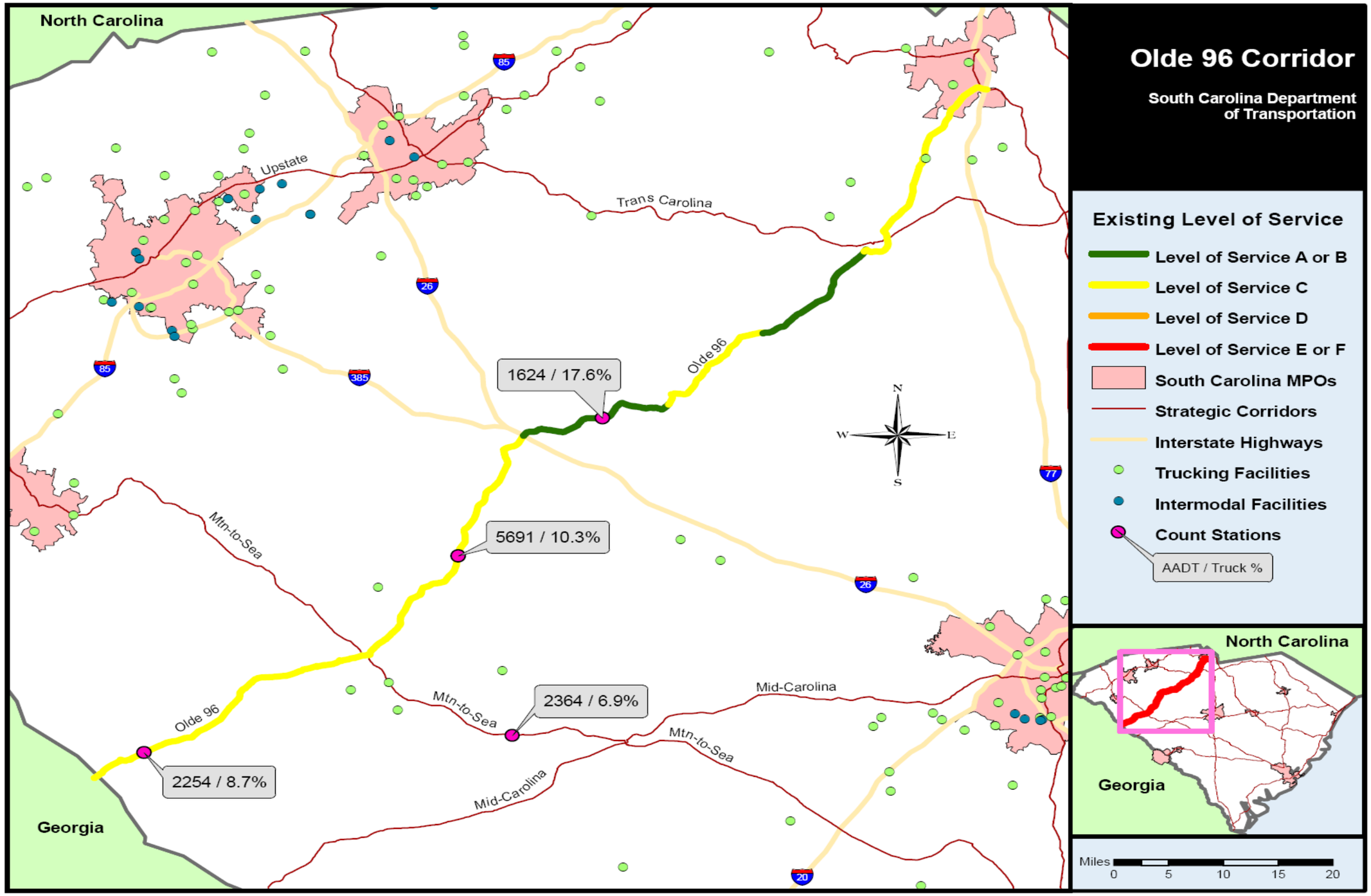
Figure 2. **Olde English-Olde 96 Corridor Freight Characteristics**



II. Corridor Issues

Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Atlantic Coast Corridor.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Deficient Segment: O-1 (SC 72)
Georgia State Line to Four Lanes in City of Abbeville

This is a rural two-lane segment, located between the Georgia State Line and the City of Abbeville. The corridor carries 8.7% truck traffic and five hundred thousand to one million tons of freight per year are estimated to utilize this roadway. Portions of this segment are projected to operate at an LOS D between S-139/S-271 and S-1 by 2030. No safety issues are associated with this segment.

Utilizing the traffic analysis process, this segment is currently operating at an acceptable level and is projected to continue with increased to LOS D by 2030. However, the LOS in this segment barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for this segment, however, the segment should be monitored for increased congestion, truck traffic and safety issues.

Deficient Segment: O-3 (SC 72 / US 25 / US 221 overlap)
Abbeville County Line to Laurens County Line

This is a rural two to four-lane divided and undivided segment that traverses through the City of Greenwood. The segment carries 10.3% truck traffic and up to one million tons of freight per year. Portions of this segment are projected to operate at an LOS E between SC 72 and SC 72 and at an LOS F between SC 72 and S-29 by 2030. No safety issues are associated with this segment.

Utilizing the traffic analysis process, this segments is currently operating at an acceptable level and is projected to continue with increased to a LOS D by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for this segment.

Segment O - 4: SC 72
Greenwood County to City of Clinton

This segment does carry a relatively high volume of truck traffic, with a truck percent of 10.3%. There is a trucking facility located in the vicinity of the segment, which may account for the high truck percentage. This corridor may be used as a more direct route from I-20 to I-26 and I-385 to the Spartanburg and Greenville region and also to I-77 and the Charlotte, NC area. There are no apparent operational constraints in the segment. This segment should be monitored for any increased congestion, truck traffic or safety issues.

Segment O – 6: (SC 72)
I-26 to Newberry County

This segment carries a high volume of truck traffic, with a truck percent of 17.6%. There are no trucking facilities located in the vicinity, but the proximity to I-26 and I-385 account for the high volumes. In addition, this corridor provides a direct connection from I-26 and I-385 to I-77 and the Charlotte, NC area. There are no congestion or safety issues identified in this segment. Additionally, there are no apparent operational constraints, and it is likely that the majority of the truck traffic is inter-regional. This segment should be monitored for any increased congestion, truck traffic or safety issues.

Deficient Segment: O-7 (SC 72)
Laurens County Line to Union County Line

This is a rural two-lane undivided segment in Newberry County that traverses through the City of Whitmire. The corridor carries 17.6% truck traffic and up to one million tons of freight per year. This segment is expected to maintain an acceptable LOS of B or C through 2030. The crash rate of 273.97 crashes per 100 million vehicle miles slightly exceeds the statewide average of 267.10 crashes per 100 million vehicle miles.

Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Deficient Segment: O-12 (SC 72 / SC 121)
Chester County Line to end of SC 121 Overlap

This is a rural two-lane undivided segment in York County that ends near the City of Rock Hill. The segment carries up to one million tons of freight per year. This segment is expected to maintain an acceptable LOS of C through 2030. However, the crash rate of 307.16 crashes per 100 million vehicle miles exceeds the statewide average of 267.10 crashes per 100 million vehicle miles.

Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

III. Olde English-Old 96 Connectors

This corridor has no designated connectors.

IV. Transit in the Olde English-Old 96 Corridor

The Olde English-Old 96 Corridor crosses three planning regions including Upper Savannah, Central Midlands, and Catawba. The transit screening for the corridors is explained in more detail in the Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Catawba	O10 to 013	US 21/SC 72/SC 121	20.98	Local Bus

Strategic Corridor System Action Plan

PEE DEE CORRIDOR (10 SEGMENTS – 146 MILES)

I. Introduction

The Pee Dee Corridor runs on US 52 from the State of North Carolina line in Chesterfield County to US 78 in Charleston County. The entire corridor traverses six counties: Charleston, Berkeley, Williamsburg, Florence, Darlington, and Chesterfield spanning a distance of 145.93 miles. Several other facilities overlap US 52 along this corridor, including: US 1, US 15, US 401, SC 527, SC 261, and US 17A. A map of the corridor is shown in Figure 1.

US 52 along the Pee Dee corridor was constructed in the mid 1930s connecting the central portions of North and South Carolina with Charleston, SC and the coastal region. The corridor directly serves the cities of Charleston, Monks Corner, Bonneau, St. Stephens, Kingstree, Lake City, Scranton, Coward, Florence, Darlington, Society Hill and Cheraw, as well as several smaller cities and towns.

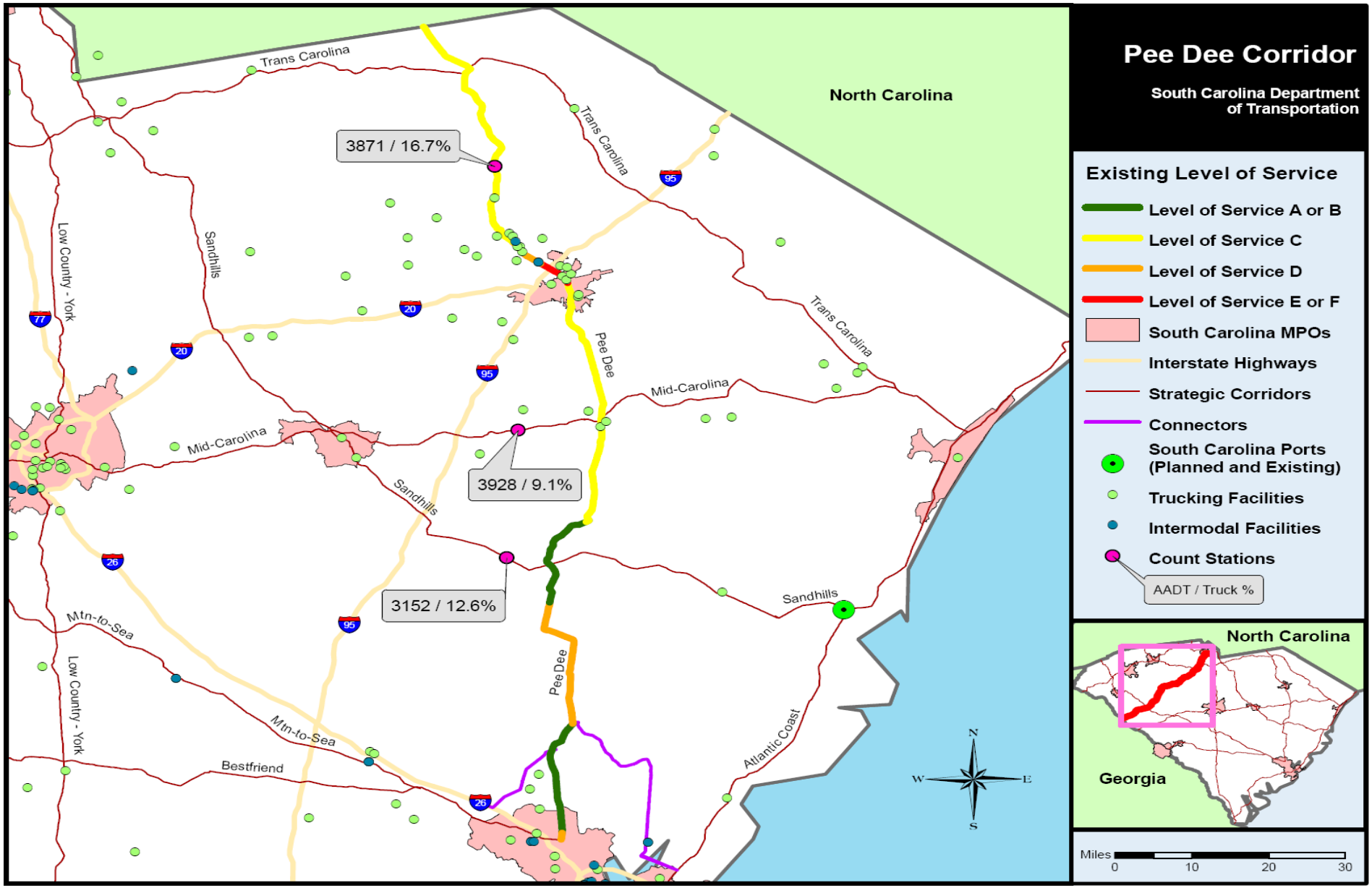
The corridor provides an alternate route to I-95 and I-26 from Florence to Charleston. This corridor also provides an important route connecting the Port of Charleston to I-95, I-20 and areas within northeastern South Carolina. The Port of Charleston is one of the busiest ports on the Atlantic and Gulf Coasts, moving almost 2 million containers and over 533,000 tons of breakbulk cargo in 2006. The top commodities moving through the port include agricultural products, consumer goods, machinery, metal and vehicles. The port is one of the State's primary economic engines, contributing about $23 billion into the state's economy and generating about $2.5 billion in tax revenue.

Assuming recent trends continue, the majority of the counties along the Pee Dee corridor are projected to experience high rates of population growth over the next several decades, further increasing personal and freight travel demands along this critical corridor. The percentage of truck traffic is high at 16.7% north of I-95. Williamsburg County is the only county of the six along this corridor with a decreasing population projected between years 2005 and 2030.

Figure 1. Pee Dee Corridor

Segment	County	Route	From	To	Length (miles)
PD-1	Charleston	US 52	US 78 (End of overlap)	Berkeley County	1.31
PD-2	Berkeley	US 52	Charleston County	US 17 Alternate	16.21
PD-3	Berkeley	US 52	US 17 Alternate	Williamsburg County	23.32
PD-4	Williamsburg	US 52	Berkeley County	SC 261	16.23
PD-5	Williamsburg	US 52	SC 261	Florence County	12.82
PD-6	Florence	US 52	Williamsburg County	US 301	16.36
PD-7	Florence	US 52	US 301	Darlington County	14.21
PD-8	Darlington	US 52	Florence County	US 401	5.44
PD-9	Darlington	US 52	US 401	Chesterfield County	17.07
PD-10	Chesterfield	US 52	Darlington County	NC State Line	22.96
C-1	Charleston	SC 41	US 17	Berkeley County	4.77
C-2	Berkeley	SC 41	Charleston County	SC 402	12.58
C-3	Berkeley	SC 402	SC 41	US 52	15.97
C-4	Berkeley	US 17 Alternate	I-26	US 52	16.24

Figure 1. Pee Dee Corridor Freight Characteristics



II. Corridor Issues

Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Pee Dee Corridor.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Deficient Segment: PD-1 (US 52)
US 78 to Berkeley County Line

This urban divided six-lane facility is projected to operate at LOS F by 2030. It is located in the City of Goose Creek east of I-26. Safety thresholds are exceeded within this segment with the average crash rate of 823.31 per 100 million exceeding the statewide average of 267.10 per 100 million. This segment carries up to five million tons of freight annually.

This segment is primarily a constrained urban corridor due to the heavy development in the area. Transportation Demand Strategies; Congestion Management strategies; and Intelligent Transportation Systems should be explored to help manage/mitigate the congestion. Additional transit service should also be explored, including the opportunities for commuter based services, including the potential for fixed guideway transit. Additional potential transit operational strategies could include queue jumpers, bus pullouts and the exploration of transit oriented managed lanes. Pedestrian and bicycle facilities and connectivity are also an important consideration. From the local land use perspective, redevelopment opportunities should include transit oriented applications.

Deficient Segment: PD-2 (US 52)
Charleston County Line to US 17 Alternate

This divided 4 lane facility is projected to operate LOS D-F by 2030 between the Charleston County line and secondary 50. Safety thresholds have not been exceeded within this segment.

In addition to the projected congestion in 2030, the segment provides a direct connection between the town of Moncks Corner and Goose Creek, two fast growing areas. To serve these areas the trucking industry expects to move one million to five million tons of freight along this segment.

Identified Segment Issues:

- Future congestion
- Rapid development throughout the area
- Truck Traffic

Potential Solutions:

Although there are no identified safety issues based on crash rates, five separate operational or capacity improvements are recommended to address safety and congestion. These include widening the roadway to six lanes and improved access control with interparcel connections or service roads. Care should be taken to avoid sensitive natural resources found within this segment.

PD 2-1:

Potential Project Type:	Improve access control with interparcel connections/service roads, bicycle and pedestrian facilities, and transit coordination.
Project Limits:	Charleston County line to S-529
Project Length (miles):	1.17

PD 2-2:

Potential Project Type:	Widen to six lanes within existing right-of-way, bicycle and pedestrian facilities, access management, and transit coordination.
Project Limits:	S-529 to S-45
Project Length (miles):	2.22

PD 2-3:

Potential Project Type:	Widen to six lanes within existing right-of-way, bicycle and pedestrian facilities, access management, and transit coordination.
Project Limits:	S-45 to S-667
Project Length (miles):	0.51

PD 2-4:

Potential Project Type:	Widen to six lanes within existing right-of-way, bicycle and pedestrian facilities, access management, and transit coordination.
Project Limits:	S-667 to S-9
Project Length (miles):	3.58

PD 2-5:

Potential Project Type:	Widen to six lanes within existing right-of-way, bicycle and pedestrian facilities, access management, and transit coordination.
Project Limits:	S-9 to S-50
Project Length (miles):	2.34

Deficient Segment: PD 3 (US 52)
US 17 Alternate to Williamsburg County Line

This is primarily an undivided two-lane facility with some sections of four lanes from near Moncks Corner to near Kingstree. This segment is projected to operate at LOS F between the beginning of the overlap with US 17A and the end of the overlap section by 2030. This overlap section with US 17A far exceeds the statewide average crash rate of 267.10 crashes per 100 million vehicle miles at 3,036.73 crashes per 100 million vehicle miles of travel.

Identified Segment Issues:

- Future congestion
- Truck traffic
- Safety issues

Potential Solutions:

To improve safety implement access management strategies, including an earth median and controlled access points from future development, and bicycle and pedestrian facilities. Use context sensitive design techniques.

Potential Project Type:	Access Management; Bicycle and Pedestrian Facilities
Project Limits:	US 52 to US 52
Project Length (miles):	1.77

Deficient Segment: PD-6 (US 52)
Williamsburg County Line to US 301

Segment PD-6, located on US 52 in Florence County, begins at the Williamsburg County line and ends at the intersection of US 52 and US 301. It is 16.36 miles long. This rural segment serves the Cities of Lake City, Scranton, and Coward. Rural segments of the corridor are divided four lane, while urban segments are undivided four and five lanes.

Safety thresholds have not been exceeded within this segment.

Utilizing the traffic analysis process, this segment currently operates at an acceptable level and is projected to continue with increased congestion to a LOS D by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for these segments

Deficient Segment: PD -7 (US 52)
US 301 Overlap to Darlington County Line

This is a divided and undivided four-lane urban facility from south of the City of Florence to north of I-95. There are many trucking facilities in the Florence area and one to five million tons of freight are expected to be moved along this corridor. It is projected to operate at a LOS D between US 76/301 and US 52 and a LOS F between I-95 and Darlington County line by 2030. Safety thresholds have not been exceeded within this segment.

Identified Segment Issues:

- Future congestion
- Truck traffic

Potential Solutions:
Widen to six lanes and implement access management strategies, including an earth median and controlled access points from future development. Use context sensitive design techniques.

Potential Project Type:	Widen to 6 lanes
Project Limits:	I-95 to Darlington County Line
Project Length (miles):	1.48

Deficient Segment: PD – 8 (US 52)
Florence County Line to US 401 (Begin Overlap)

Segment PD-8, located on US 52 in Darlington County, begins at the Florence County Line and ends when US 401 begins its overlap with US 52. This rural segment, which serves the City of Darlington, is 5.44 miles long. This portion of US 52 is a four-lane divided facility.

There are a large number of trucking and intermodal facilities in the Darlington area, particularly concentrated along I-95 and north of I-95 along the corridor. The corridor is projected to operate LOS F between US 52 Business and SC 34 by 2030. Safety thresholds have not been exceeded within this segment.

Identified Segment Issues:

- Future congestion

Potential Solutions:

The Pee Dee Council of Governments has identified an improvement project for this segment in their long range plan. Although there are no identified safety issues based on crash rates, the widening of the roadway to six lanes and the implementation of access management strategies will improve roadway operations and safety. These measures may include an earth median and controlled access points from future development. Use context sensitive design techniques.

Potential Project Type:	Widen to 6 lanes
Project Limits:	SC 340 to SC 34
Project Length (miles):	0.93

Deficient Segment: PD-9 (US 52)
US 401 Overlap to Chesterfield County Line

Segment PD-9, located on US 52 in Darlington County, begins at the start of the US 401 overlap with US 52 and ends at the Chesterfield County line. This rural segment is 17.37 miles long. A portion of the segment, from milepost 5.44 to 8.92, is four-lanes wide, with both flush and earth medians. At milepost 8.92, the facility narrows to two lanes for the remainder of the segment.

The corridor is projected to operate at an LOS D by 2030. Safety thresholds have not been exceeded within this segment. This route also carries 16.7% truck traffic and is primarily due to the concentration of trucking and intermodal facilities along the corridor and its proximity to I-20 and I-95. There are no apparent operational constraints within the segment.

Utilizing the traffic analysis process, this segment currently operates at an acceptable level and is projected to continue with increased congestion to a LOS D by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Local officials have pointed out that an alternate route to the steel plant has been closed and truck traffic on this segment has increased. The Pee Dee Council of Governments has identified a project to widen US 52 from US 52 Business to S-41.

III. Pee Dee Connectors

Connectors have been identified as routes that link the Pee Dee Corridor to major areas and interstate highways. Four connectors have been identified for this corridor.

Connector C-1: SC 41
Connector C-1, located on SC 41, begins at US 17 in Charleston County and ends at the Berkeley County Line. This connector is 4.77 miles long. This facility provides a segment of the connection from US 17 to US 52 in Moncks Corner.

Connector C-2: SC 41
Connector C-2 travels along SC 41 from Charleston County Line to SC 402. This rural connector is 12.8 miles long. This facility provides a segment of the connection from US 17 to US 52 in Moncks Corner.

Connector C-3: SC 402
Connector C-3 follows SC 402 from SC 41 to US 52, on the Pee Dee Corridor, in Berkeley County. This connector is 15.97 miles long. This facility provides a segment of the connection from US 17 to US 52 in Moncks Corner.

Connector C-4: US 17 Alternate
This facility follows US 17 Alternate from I-26 to US 52 in Berkeley County. This connector is 16.24 miles long. This facility provides the direct connection from I-26 to US 52 in Moncks Corner.

IV. Transit in the Pee Dee Corridor

The Pee Dee Corridor crosses three planning regions including Berkeley-Charleston-Dorchester, Pee Dee and Waccamaw. The transit screening for the corridors is explained in more detail in the Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
BCD	PD1 to PD6	US 52	86.25	Local Bus, BRT, Commuter Rail

Strategic Corridor System Action Plan

SANDHILLS – SANTEE COOPER CORRIDOR (18 SEGMENTS – 172 MILES)

I. Introduction

The Sandhills – Santee Cooper Corridor runs on US 521 from US 17 in Georgetown County north to the State of North Carolina. The corridor is entirely contained on US 521, and it traverses six counties: Georgetown, Williamsburg, Clarendon, Sumter, Kershaw, and Lancaster spanning a distance of 171.58 miles. Several other facilities overlap US 521 along this corridor, including: US 17 Alternate, SC 261, US 301, US 15, US 601, SC 522, SC 9, and SC 75. The corridor location is shown in Figure 1.

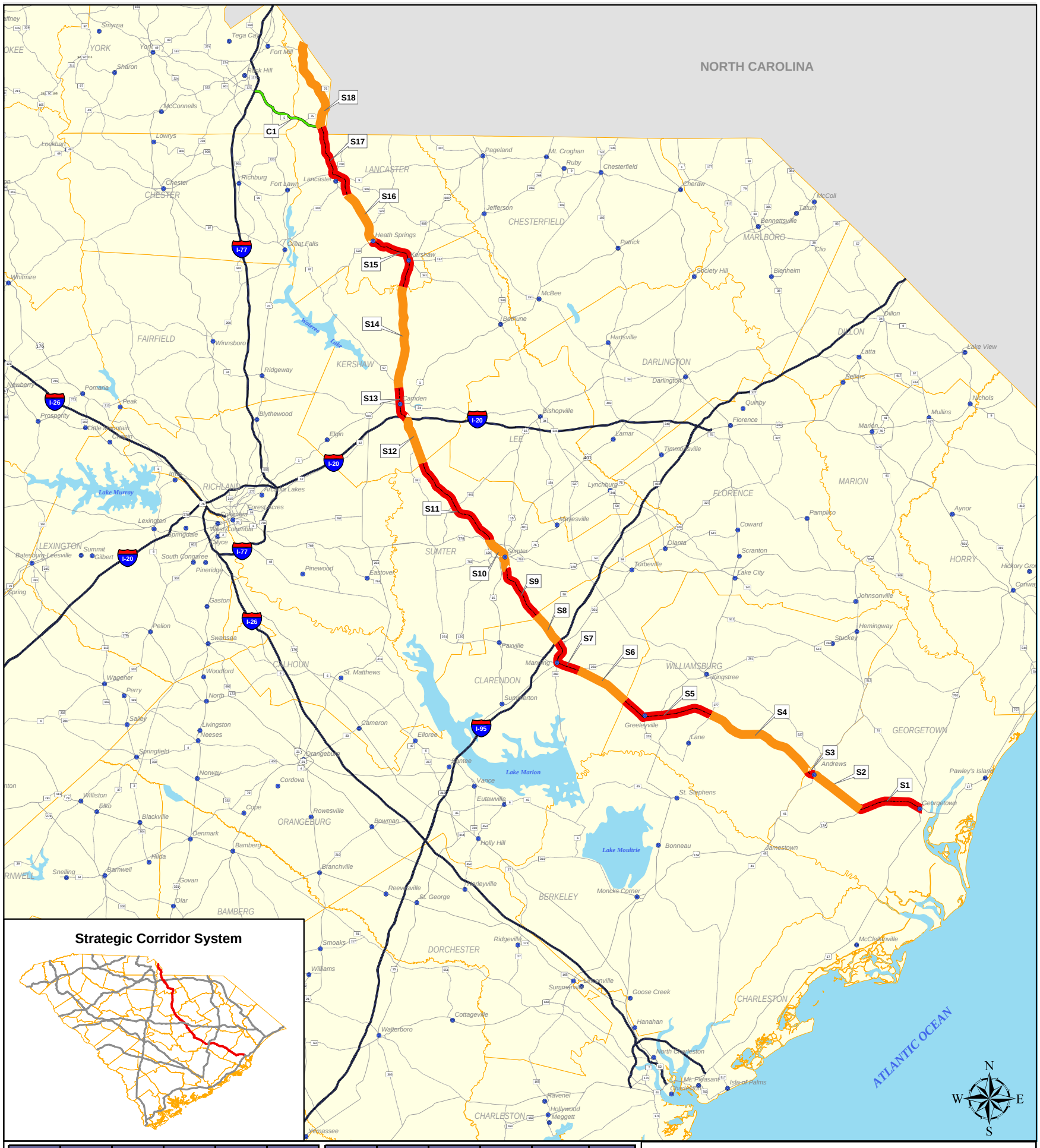
US 521 was constructed in the early 1930s providing a direct route between the South Carolina coast near Georgetown and the greater Charlotte, North Carolina metropolitan region. It directly serves the smaller cities and towns of Georgetown, Andrews, Greeleyville, Manning, Sumter, Camden, Kershaw, Heath Springs, and Lancaster. The corridor provides an alternate and more direct connection between the two termini locations compared to travel along the two closest interstates (along I-77 and I-26). This corridor will become even more critical for personal and freight travel in the long-term with high rates of population growth expected at the counties located at the corridor termini.

II. Corridor Issues

Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Sandhills Santee Cooper Corridor.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Figure 1. Sandhills – Santee Cooper Corridor



Segment	County	Route	From	To	Length (miles)
S-1	Georgetown	US 521	US 17	US 17 Alternate	9.58
S-2	Georgetown	US 521	US 17 Alternate	City of Andrews	7.66
S-3	Georgetown	US 521	City of Andrews	Williamsburg County	1.85
S-4	Williamsburg	US 521	Georgetown County	SC 377	17.36
S-5	Williamsburg	US 521	SC 377	Clarendon County	13.79
S-6	Clarendon	US 521	Williamsburg County	SC 261 (end overlap)	11.50
S-7	Clarendon	US 521	SC 261 (end overlap)	I-95	3.40
S-8	Clarendon	US 521	I-95	Sumter County	5.30
S-9	Sumter	US 521	Clarendon County	US 15 (end overlap)	9.76
S-10	Sumter	US 521	US 15 (end overlap)	US 76/378	4.45

Segment	County	Route	From	To	Length (miles)
S-11	Sumter	US 521	US 76/378	Kershaw County	15.62
S-12	Kershaw	US 521	Sumter County	I-20	7.00
S-13	Kershaw	US 521	I-20	2-Lane Section	4.90
S-14	Kershaw	US 521	2-Lane Section	Lancaster County	14.95
S-15	Lancaster	US 521	Kershaw County	SC 522 (begin overlap)	10.82
S-16	Lancaster	US 521	SC 522 (begin overlap)	US 521 Business	8.19
S-17	Lancaster	US 521	US 521 Business	SC 5 Underpass	11.48
S-18	Lancaster	US 521	SC 5 Underpass	NC State Line	13.97
C-1	Lancaster/ York	SC 5	US 521 (Lancaster County)	I-77 (York County)	12.23

SANDHILLS-SANTEE COOPER CORRIDOR
US 521

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

Planning SCDOT Environmental

TranSystems URS RS&H

0 5 10 20 Miles

Source: SCDOT GIS Data
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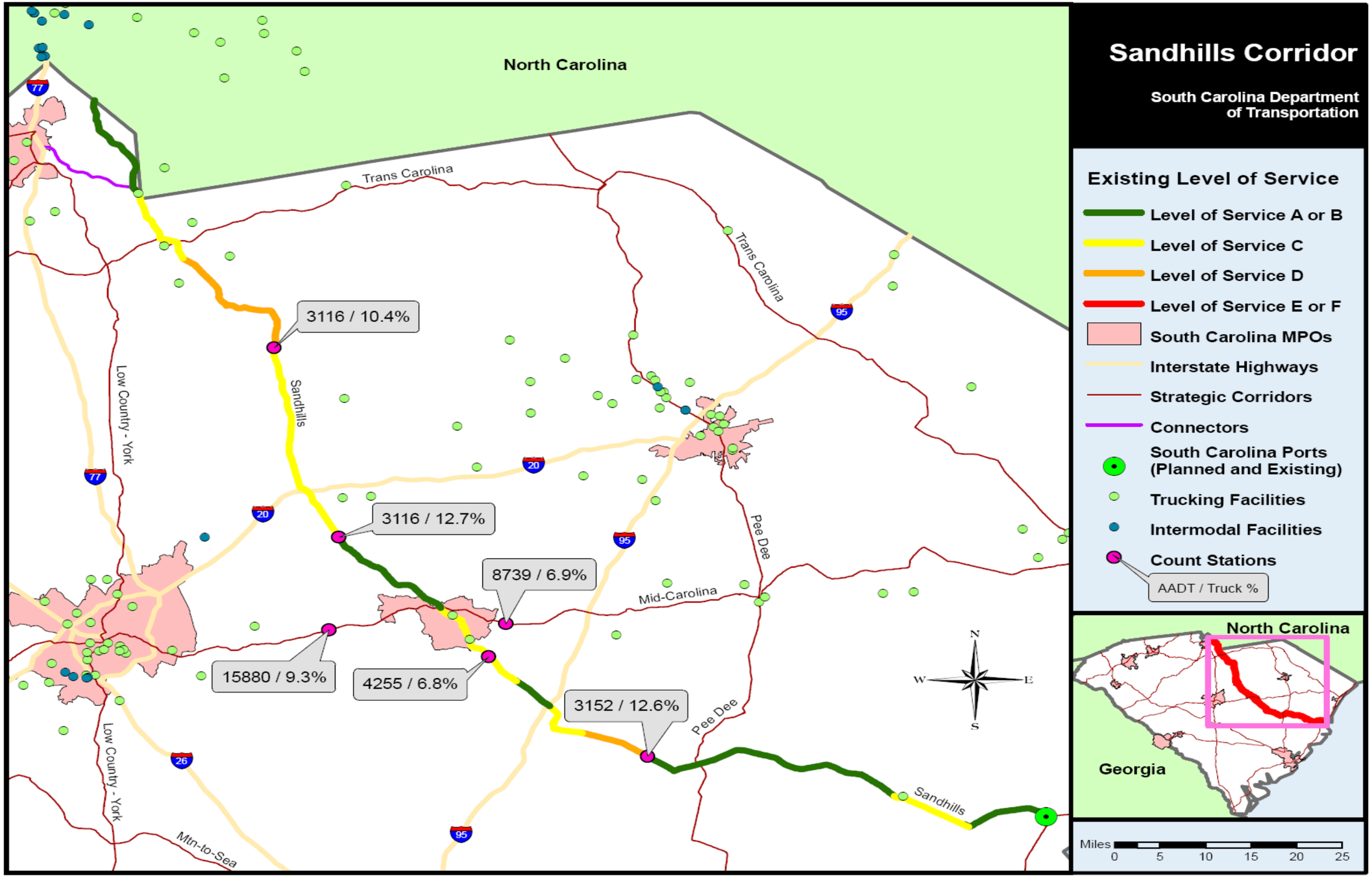
Figure 2. **Sandhills – Santee Cooper Corridor Freight Characteristics**



Deficient Segment: S-1 (US 521)
US 521 from US-17 to US-17A

Segment S-1 lies on US 521 in Georgetown County. It begins in the Georgetown city limits and extends from the intersection of US 17 to the intersection of US 17 Alternate. This is a rural four-lane segment with a 28-foot bituminous median. The future LOS ranges from B to F. The deficiency of LOS F is located on US 521 between S-521 (milepost 17.69) and S-119 (milepost 22.95). This route is also an emergency evacuation route designated by the South Carolina Emergency Management Office. No safety issues are associated with this segment. This facility provides access to the Port of Georgetown and is an essential freight route. There are potential turning issues for the heavy trucks from US 17 and the port onto US 521.

Identified Segment Issues:

- Future congestion
- Truck traffic from the Port
- Historic Areas

Potential Solutions:

Although there are no identified safety issues based on crash rates, operational safety can be improved with the implementation of access management strategies. Incorporated within these solutions are provisions for improved spacing of median openings, bicycle and pedestrian facilities. In addition, any potential improvement must include an assessment of the historic areas found within the segment. Intersections, especially at US 17 and US 521 should be evaluated for operational constraints for heavy trucks.

Potential Project Type:	Widening to implement access control, bicycle and pedestrian facilities
Project Limits:	US-17 to S-119
Project Length (miles):	5.26

Deficient Segment: S-3 (US 521)
US 521 from Andrews City Limits to Williamsburg County Line

This is a two- to four-lane undivided rural roadway and is designated as an evacuation route by the South Carolina Emergency Management Office. It is projected to operate at a LOS D between S-142 and SC 41 by 2030. No safety issues are associated with this segment. The facility provides access from the City and Port of Georgetown west to I-95. It is expected to move over 5 million tons of freight per year making this an essential trucking route.

Utilizing the traffic analysis process, this segment is currently operating at LOS C and is projected to continue with increased congestion to reach LOS D by 2030. The level of congestion in this segment barely meets the minimum thresholds. The Waccamaw Council of Governments has identified an improvement in this segment.

Deficient Segment: S-10 (US 521)
US 15 (End of Overlap) to US 76/378

This is three to four-lane undivided urban roadway in the City of Sumter. It is projected to continue to operate at an LOS C through the year 2030. Safety issues are associated with this segment since the crash rate of 375 per 100 million vehicle miles exceeds that statewide average of 267.10. The facility provides access from the City of Sumter east to I-95 and west to I-20 and carries 6.8% truck traffic. It is expected to move over five million tons of freight per year making this an essential trucking route.

The Sumter Area MPO has identified improvements in this area. Strategies should be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Deficient Segment: S-12 (US 521)
US 521 from Sumter County Line to I-20

This is a two to four-lane undivided rural roadway. It is located north of the City of Sumter and south of I-20. It is projected to operate at LOS D between Sumter County Line and I-20 by 2030. No safety issues are associated with this segment. The facility provides access between I-20 and the City of Sumter and carries 12.7% truck traffic. There are several trucking and intermodal facilities located in the vicinity. The proximity to I-20 and the corridor connection to the Port of Georgetown is a factor in the truck traffic. There are no apparent operational constraints, and the majority of the truck traffic is likely inter-regional, accessing I-20 and north to I-77 and the Charlotte, NC area.

Utilizing the traffic analysis process, this segment is currently operating at LOS C and is projected to continue with increased congestion to reach LOS by 2030. The LOS in this segment barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. A project has been identified for this segment by Santee-Lynches Council of Governments.

Deficient Segment: S-13 (US 521)
US 521 from I-20 to Two Lane Section (Near S-966)

This is a four-lane divided rural roadway. It traverses the City of Camden and is located north of I-20. It is projected to operate at an LOS D between S-217 and S-45 by 2030. No safety issues are associated with this segment. The facility provides access between I-20 and Camden and carries 12.7% to 10.4% truck traffic. It is expected to move over 5 million tons of freight per year making this an essential trucking route.

Two historic districts, City of Camden Historic District and Kendall Mill Historic District, are located on this segment. Any modifications to the Corridor could potentially impact these Districts.

There is an emerging corridor, the Camden By-Pass, which would replace any potential improvements through this segment. This is addressed in the region's long range plan. Based on these conditions, no projects to address congestion were identified for this segment.

Deficient Segment: S-14 (US 521)
US 521 from Two Lane Section (Near S-966) to Lancaster County

This is a two-lane undivided rural roadway. It is located south of the City of Kershaw and is north of I-20. It is projected to operate at LOS D between S-890 and S-126 by 2030. No safety issues are associated with this segment. The facility provides access between I-20 and I-77 through the Cities of Camden, Kershaw, and Lancaster and carries 10.4% truck traffic. It is expected to move over 5 million tons of freight per year making this an essential trucking route.

Utilizing the traffic analysis process, this segment is currently operating at LOS ranging from B to C due to a varying cross section, and is projected to continue with increased congestion to reach LOS D between S-890 to S-126 by 2030. The LOS in this segment barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. The improvement of this segment is addressed in the Santee-Lynches Council of Government Long Range Plan.

Deficient Segment: S-15 (US 521)
US 521 from Kershaw County to SC 522 Overlap

This is a two- to four-lane undivided rural roadway. It traverses through the City of Kershaw. It is projected to operate at an LOS D between S-770 and SC 341/ S-13 and between S-15 and S-159 by 2030. No safety issues are associated with

this segment. The facility provides access between I-20 and I-77 through the Cities of Camden, Kershaw, and Lancaster and carries 10.4% truck traffic. It is expected to move over five million tons of freight per year making this an essential trucking route.

Utilizing the traffic analysis process, this segment is currently operating at a LOS between C and D based on a varying cross section and is projected to continue with increased congestion to reach a LOS D in some segments by 2030. However, the LOS in this segment barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. A project has been identified in the Catawba Council of Governments Long Range Transportation Plan to widen SC 521.

Deficient Segment: S-16 (US 521)
US 521 from SC 522 Overlap to US 521 Business

This segment is primarily a rural, two-lane facility with one small section having four lanes. It is projected to operate at an LOS D between S-15 and S-407 by 2030. No safety issues are associated with this segment. The facility provides access between I-20 and I-77 through the Cities of Camden, Kershaw, and Lancaster and carries 10.4% truck traffic. It is expected to move over five million tons of freight per year making this an essential trucking route.

Utilizing the traffic analysis process, this segment is currently operating at a LOS ranging from B to D based on a varying cross section, and is projected to continue with increased congestion to reach a LOS D in some segments by 2030. However, the LOS in this segment barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for this segment. A project has been identified in the Catawba COG Long Range Transportation Plan to widen SC 521.

Deficient Segment: S-17 (US 521)
US 521 from US 521 Business to SC 5 Underpass

This is a two to four-lane undivided rural roadway. It is projected to operate at an LOS D between SC 9/SC 9 Bus and US 521 by 2030. No safety issues are associated with this segment. The facility provides access between I-20 and I-77 through the Cities of Camden, Kershaw, and Lancaster and carries 10.4% truck traffic. It is expected to move over 5 million tons of freight per year making this an essential trucking route.

Utilizing the traffic analysis process, this segment is currently operating at a LOS ranging from B to C based on a varying cross section, and is projected to continue with increased congestion to reach a LOS D in some segments by 2030. The LOS in this segment barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for this segment.

Deficient Segment: S-18 (US 521)
US-521 from the SC-5 Underpass to the North Carolina State Line

This is a two- to four-lane undivided roadway. A portion of this segment between SC 160 and North Carolina line is projected to operate at an LOS D by 2030. No safety issues are associated with this segment. The facility in this segment acts as a parallel route to I 77 providing access from South Carolina into the Charlotte urban area. This is an essential trucking route that is expected to move over five million tons of freight per year.

Identified Segment Issues:

- Future congestion

Potential Solutions:
Capacity Improvement by widening to six lanes with grass median and access controls.

Potential Project Type:	Widen to six lanes within the existing right-of-way
Project Limits:	SC-160 to North Carolina State Line
Project Length (miles):	0.85

III. Sandhills – Santee Cooper Connectors

Connectors have been identified as routes that link the Sandhills-Santee Cooper Corridor to major areas and interstate highways. One connector has been identified for this corridor.

Connector C-1: SC 151/US 601
Connector C-1, located on SC 5, begins at US 521 and ends at I-77 in the City of Rock Hill. This connector is 12.23 miles long. This facility provides the direct connection from the corridor to the Cities of Rock Hill and Charlotte via the interstate.

IV. Transit in the Sandhills Santee Cooper Corridor

The Sandhills Santee Cooper Corridor crosses three planning regions including Waccamaw, Santee-Lynches, and Catawba. The transit screening for the corridors is explained in more detail in those Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Santee Lynches	S7 to S10	US 521	22.91	Local Bus

Strategic Corridor System Action Plan

TRANS-CAROLINA CORRIDOR (32 SEGMENTS – 247 MILES)

I. Introduction

The Trans-Carolina Corridor runs on SC 9, SC 38 and US 501 from Spartanburg County and the upstate region to Horry County and the coastal region of the state. The corridor traverses nine counties: Spartanburg, Union, Chester, Lancaster, Chesterfield, Marlboro, Dillon, Marion and Horry Counties spanning a distance of 246.60 miles. Several other facilities overlap SC 9, SC 38 and US 501 along this corridor, including: US 176, SC 49, SC 121 Business, SC 72 Business, SC 97 Business, US 321, SC 901, SC 109, US 52, US 1, US 15, US 401, and US 378. A map of the corridor is shown in Figure 1.

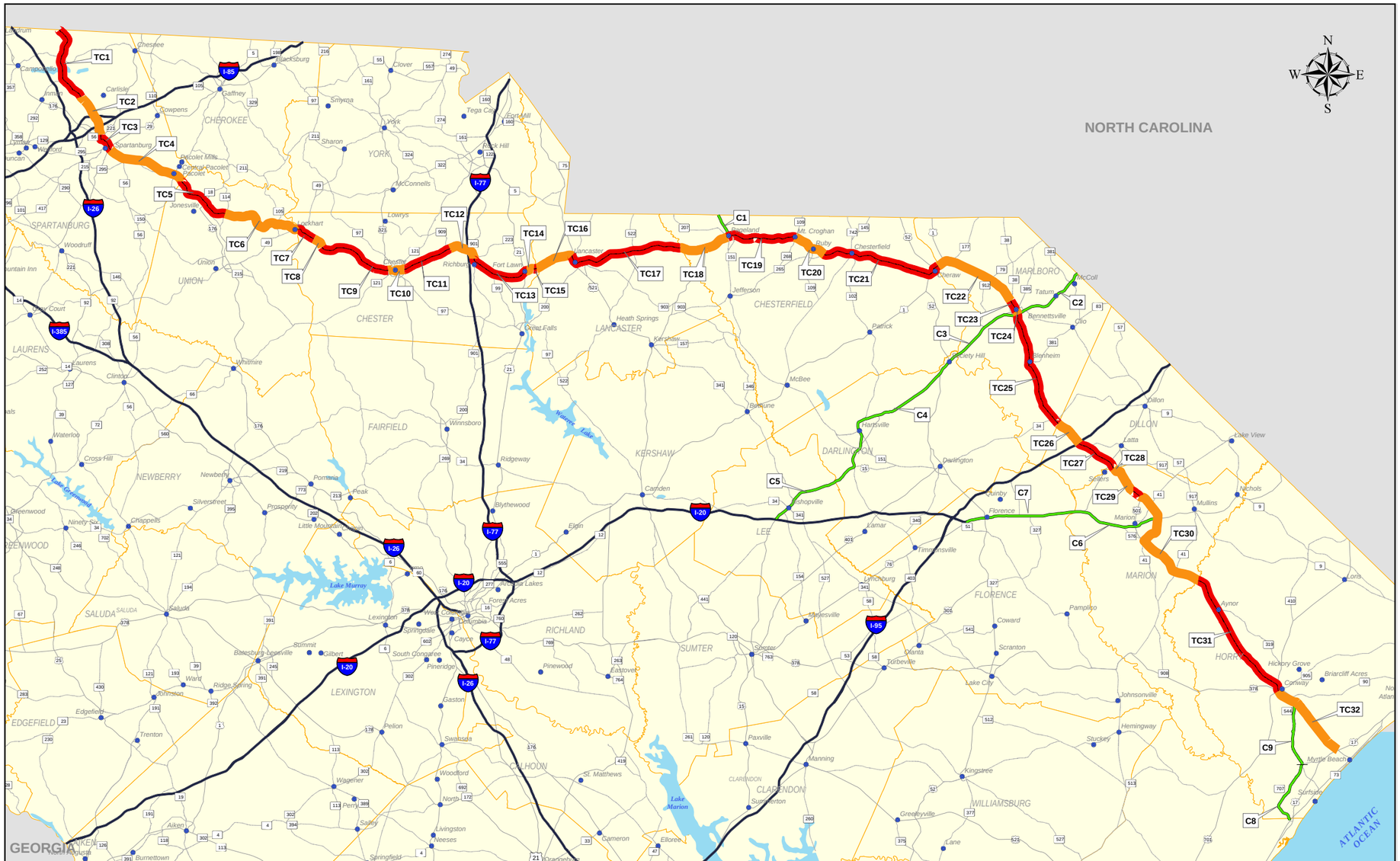
SC 9 and SC 38 were first constructed in the 1920s, while US 501 was completed in the 1930s. The corridor serves and connects the growing upstate region with the coastal region of the state, directly serving the cities of Spartanburg, Chester, Lancaster, Cheraw, Bennettsville, Conway and Myrtle Beach, as well as several smaller cities and towns. The Trans-Carolina corridor runs almost parallel to the South Carolina-North Carolina state line.

The corridor provides a direct connection between the upstate region of South Carolina with the northern counties and the northeastern coastal counties of the State. Assuming recent trends continue, several of the counties along the Trans Carolina Corridor are projected to experience moderate rates of population growth over the next several decades, further increasing personal and freight travel demands along this corridor.

Trans-Carolina Connectors have been identified as routes that link the Trans-Carolina Corridor to major areas and Interstate highways. Nine (9) connectors have been identified for this corridor. Key routes include a connection from SC 9 at Pageland to Monroe, North Carolina along US 601/SC151 in Chesterfield County; a connection from Laurinburg, North Carolina to I-20 along US 15 in Marlboro, Darlington and Lee Counties; a connection between US 501 and I-95 along US 76 in Marion and Florence Counties, and a connection from US 501 to US 17 near Murrells Inlet along SC 544 and SC 707 in Horry County.

The Interstate 73 project, if completed, will affect the projected growth in traffic volumes for the Trans Carolina Corridor, particularly the portions through Marlboro, Dillon and Horry Counties. This should be a consideration in prioritizing projects in this corridor and its connectors in these segments.

Figure 1. Trans Carolina Corridor



Strategic Corridor System

Segment	County	Route	From	To	Length (miles)
TC-1	Spartanburg	SC 9	NC State Line	4 Lanes	11.98
TC-2	Spartanburg	SC 9	4 Lanes	US 176 overlap	5.81
TC-3	Spartanburg	SC 9 / US 176	US 176 overlap	End of US 176 overlap	10.49
TC-4	Spartanburg	SC 9	End of US 176 overlap	Union County	3.53
TC-5	Union	SC 9	Spartanburg County	SC 114	8.36
TC-6	Union	SC 9	SC 114	Chester County	12.03
TC-7	Chester	SC 9	Union County	4 lanes	2.32
TC-8	Chester	SC 9	4 Lanes	2 Lanes	2.12
TC-9	Chester	SC9	2 Lanes	4 Lanes	9.53
TC-10	Chester	SC 9	4 Lanes	2 Lanes	4.95
TC-11	Chester	SC 9	2 Lanes	4 Lanes	7.29
TC-12	Chester	SC 9	4 Lanes	2 Lanes	5.70
TC-13	Chester	SC 9	2 Lanes	4 Lanes	6.25
TC-14	Chester	SC 9	4 Lanes	4 Lanes	0.80
TC-15	Chester	SC 9	4 Lanes	Lancaster County	1.13
TC-16	Lancaster	SC 9	Chester County	2 Lanes	7.67
TC-17	Lancaster	SC 9	2 Lanes	Chesterfield County	14.13
TC-18	Chesterfield	SC 9	Lancaster County	US 601 (end of overlap)	7.29
TC-19	Chesterfield	SC 9	US 601 (end of overlap)	SC 109	9.83
TC-20	Chesterfield	SC 9	SC 109	SC 265	5.24
TC-21	Chesterfield	SC 9	SC 265	Marlboro County	17.47

Segment	County	Route	From	To	Length (miles)
TC-22	Marlboro	SC 9	Chesterfield County	SC 38	12.31
TC-23	Marlboro	SC 9/SC 38	SC 38	SC 385	1.83
TC-24	Marlboro	SC 9/SC 38	SC 385	US 15 (End of Overlap)	2.43
TC-25	Marlboro	SC 38	US 15	Dillon County	12.21
TC-26	Dillon	SC 38	Marlboro County	I-95	4.14
TC-27	Dillon	SC 38	I-95	Marion County	6.16
TC-28	Marion	SC 38	Dillon County	US 501	1.12
		US 501	SC 38	MP 4.50	3.77
TC-29	Marion	US 501	Milepost 4.5	US 501 Bus	0.71
TC-30	Marion	US 501	US 501 Bus	Horry County	18.31
TC-31	Horry	US 501	Marion County	SC 905/US 701	19.47
TC-32	Horry	US 501	SC 905/US 701	US 17	12.06
C-1	Chesterfield	US 601 / SC 151	SC 9	NC State Line	3.49
C-2	Marlboro	US 15	SC 9	NC State Line	11.40
C-3	Marlboro	US 15	SC 9	Darlington County	10.12
C-4	Darlington	US 15	Marlboro County	Lee County	26.18
C-5	Lee	US 15	Darlington County	I-20	10.25
C-6	Marion	US 76	US 501	Florence County	12.50
C-7	Florence	US 76	Marion County	I-95	15.15
C-8	Horry	SC 707	US 17	Georgetown County	9.26
C-9	Horry	SC 544	US 501	US 17	9.33

TRANS CAROLINA CORRIDOR
SC 9, SC 38 AND US 501

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

0 5 10 20 Miles

Source: SCDOT GIS Data.
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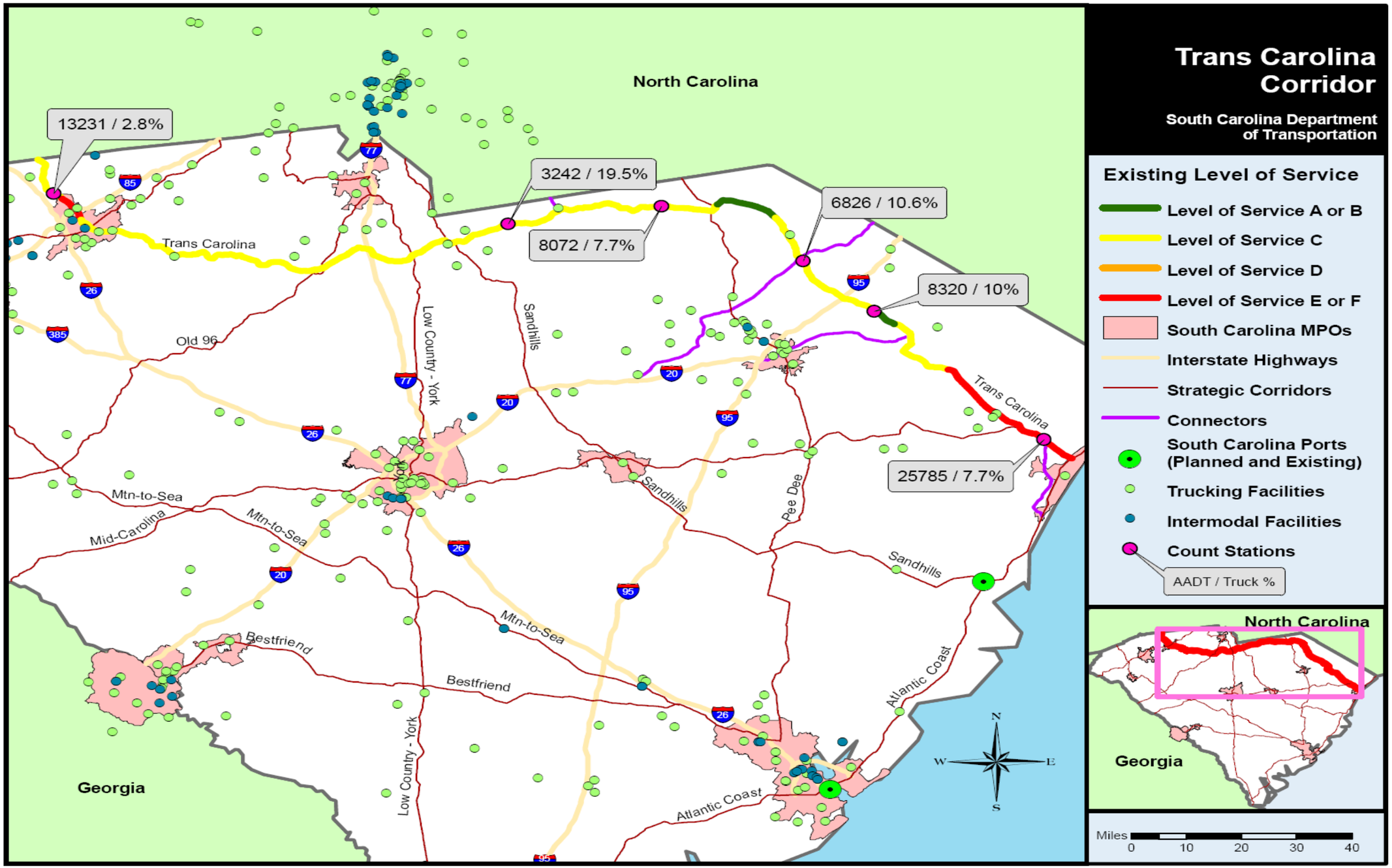
Figure 2. **Trans Carolina Corridor** Freight Characteristics



II. Corridor Issues

Several criteria were used to identify corridor issues. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Trans Carolina Corridor.

Among the criteria that define the strategic network is a threshold percentage above the statewide average of 8 percent, as well as a truck volume percentage of 1,000 trucks per day. Not every segment of every corridor will exceed the threshold volume, even if they exceed 8 percent. A high percentage, coupled with the presence of freight facilities near the segment, could be an indication that freight activity will grow, and should be monitored in future planning periods. Although threshold levels of congestion or accident rate may not trigger improvements in a segment, these conditions will be noted by segment.

Deficient Segment: TC -1 (SC 9)
SC 11 to S-42

This two-lane segment, located just to the north of the Spartanburg urban area has identified deficiencies based on future congestion levels. There is also an identified safety issue, with the crash rate higher than the system average crash rate. The City of Spartanburg and I-85 to the south also impacts this segment, and numerous trucking facilities are located in the area.

This segment is primarily a constrained urban corridor due to the heavy development in the area. Transportation Demand Strategies; Congestion Management strategies; and Intelligent Transportation Systems should be explored to help manage/mitigate the congestion. Additional transit service should also be explored, including the opportunities for commuter based services, including the potential for fixed guideway transit. Additional potential transit operational strategies could include queue jumpers, bus pullouts and the exploration of transit oriented managed lanes. Pedestrian and bicycle facilities and connectivity are also an important consideration. From the local land use perspective, redevelopment opportunities should include transit oriented applications.

A project has been identified within the Spartanburg Area Transportation Study Transportation Improvement Program (TIP) to widen SC 9 to five lanes from SC 292 to Rainbow Lake Road. Another project has been identified to provide a traffic signal system on SR 9 (PIN number: 3304).

Deficient Segment: TC-2 (SC 9)
S-42 to US 176/221 Connection

This divided and undivided, four-lane facility currently operates at LOS F, and is projected to operate at LOS F by 2030. There is also an identified safety issue, with the crash rate higher than the system average crash rate. This segment is located within the heart of the urban area of Spartanburg and is home to several universities and other major facilities; numerous trucking facilities are located in the area. A project has been identified within the Spartanburg Area Transportation Study Transportation Improvement Program (TIP) to address the interchange at I-585, SC 9 and US 221. The Statewide Transportation Improvement Program (STIP) PIN number is 30583. An additional project has been identified to provide a traffic signal system on SR 9 (PIN number: 3304).

Identified Segment Issues:

- Current and Future congestion
- Freight movement from trucking facilities
- Rapid development throughout the area

Potential Solutions:
Operational / access management strategies along SR 9 / Boiling Springs Blvd. Implement access management strategies, including the relocation of McMillan and cul-de-sac at the intersection with SC 9.

Potential Project Type:	Operational / Access Management
Project Limits:	S-42 (Poors Ford Rd./Rainbow Lake Road) to S-56 (Old Furnace Road)
Project Length (miles):	0.20

Deficient Segment: TC-4 (SC 9)
US 176 to Union County

This divided and undivided, two to four-lane facility has an identified safety issue, with the crash rate higher than the system average crash rate. This segment is located to the south of the Spartanburg urban area and there are numerous trucking facilities are located in the area.

Identified Segment Issues:

- Safety
- Freight movement from trucking facilities
- Rapid development throughout the area

There are potential strategies available that are consistent with the State Highway Safety Plan that could be implemented in this segment. These strategies include expanded shoulders, installation of protective barriers, and expanding/improving roadway clear zones.

Deficient Segment: TC-11 (SC 9)
SC 9 Business/SC 72 to S-46

This divided and undivided, two-lane facility has identified deficiencies based on future congestion levels, and is projected to operate at LOS D and F by 2030. This segment could face increased freight traffic as it is located west of I-77, east of the City of Chester, and south of Rock Hill with many trucking facilities located in the immediate vicinity.

Identified Segment Issues:

- Future congestion
- Rapid development throughout the area

This segment is primarily a constrained urban corridor just east of Chester due to the heavy development in the area. Transportation Demand Strategies; Congestion Management strategies; and Intelligent Transportation Systems should be explored to help manage/mitigate the congestion. Additional transit service should also be explored, including the opportunities for commuter based services. Potential transit operational strategies could include queue jumpers, bus pullouts and the exploration of transit oriented managed lanes. Pedestrian and bicycle facilities and connectivity are also an important consideration. From the local land use perspective, redevelopment opportunities should include transit oriented applications.

Deficient Segment: TC-16 (SC 9)
S-67 to US 521 Business

This divided four-lane facility located between Fort Lawn and Lancaster has identified deficiencies based on future congestion levels. The segment currently operates at LOS C, and is projected to operate LOS F by 2030, with the portion of the segment from S-56 to SC 909 projected to operate LOS D by 2030. There is a trucking facility located at the end of this segment and a very high truck percentage of 19.5%. There are several intermodal and trucking facilities in the

vicinity and the segment is also close in proximity to the Sandhills – Santee Cooper corridor, which provides a direct route into the Charlotte, NC area. There were no apparent freight oriented operational constraints within the segment.

Identified Segment Issues:

- Future Congestion
- Freight movement from trucking facilities

This segment is primarily a constrained corridor between Fort Lawn and Chester due to the heavy development in the area. Transportation Demand Strategies, Congestion Management strategies, and Intelligent Transportation Systems should be explored to help manage/mitigate the congestion. Additional transit service should also be explored, including the opportunities for commuter based services. Additional potential transit operational strategies could include queue jumpers, bus pullouts and the exploration of transit oriented managed lanes. Pedestrian and bicycle facilities and connectivity are also an important consideration. From the local land use perspective, redevelopment opportunities should include transit oriented applications.

Deficient Segment: TC-19 (SC 9)
SC 151 to S-43

This divided two-lane facility is projected to operate at LOS E by 2030. This segment intersects SC 151, a major state route and trucking facility. This facility also serves the Town of Pageland. A project to widen SC 9 to four lanes from SC 151 to SC 265 has been identified in the Pee Dee Council of Governments Long Range Plan.

Identified Segment Issues:

- Future Congestion
- Freight movement

Potential Solutions:
Potential solutions identified to address the issues within this segment include operational strategies along SR 9/Macgregor St. These solutions include four (4) intersection improvements and turn lane additions. Any improvement should include context sensitive design techniques.

Potential Project Type: Operational
Project Limits: SC 151 BP (South Pearl St) to S-43 (Airport Road)
Project Length (miles): 1.63

Deficient Segments:

TC-20: SC 109/268 to S-224
TC-22: Chesterfield Co. to SC 38
TC-26: I-95 to Marion County Line
TC-27: SC 917 to I-95
TC-28: S-22/SC 38 to S-263
TC-30: US 501 Business to SC 41

These segments are currently operating efficiently, but are projected to be congested by 2030. The area served is primarily rural with some small towns along the corridor. The amount of truck traffic utilizing this facility is not a factor in the operational efficiency, although TC-27 does have a higher truck percentage due to I-95. TC-22 has a crash rate over the system average, but there are no safety issues identified within these segments.

Improvements in Segments TC-19, TC-20, and TC-21 for widening of this corridor between Pageland and Chesterfield are currently identified in the Pee Dee Council of Governments Long Range Plan.

Potential Solutions:

TC-22: Safety
Although no specific project was identified, there are potential strategies that can be utilized to improve the safety along this segment. These potential strategies are found in the State Highway Safety Plan, "The Roadmap to Safety" and include efforts targeted at the motoring public as well as physical improvements. Crashes along this segment should be analyzed and monitored to determine the most appropriate strategies to employ.

Future Congestion:
Utilizing the traffic analysis process, these segments are currently operating at a congested level and are projected to continue with increased congestion by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for these segments

Deficient Segment: TC-31 (US 501)
S-651 to US 701

This divided four-lane facility is projected to operate at LOS F by 2030. This segment traverses the northern portion of rapidly developing coastal Horry County. There is a mix of traffic that includes a relatively high percentage of trucks, a high level of tourist traffic particularly in the summer and the local commuters.

Identified Segment Issues:

- Future Congestion
- Rapid development through the area

There are several projects included in the MPO Long Range Transportation Plan, including:

Tier I projects:

- US 501 Corridor Study in Conway.

Tier II projects:

- Improve US 378 and US 501 intersection.

Potential Solutions:

The potential solutions identified to address the issues within this segment include a range of strategies including capacity enhancements; access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational improvements, such as dedicated turn lanes and intersection improvements. There is the potential for introducing tourism based local bus service, as well as commuter based services to serve local residents. Any transit option explored should also include the consideration of bicycle and pedestrian access.

TC31-1

Potential Project Type:	Capacity; Access Management
Project Limits:	S-651 (Bill Jones Road) to S-591 (Enoch Road)
Project Length (miles):	6.55

TC31-2

Potential Project Type:	Capacity; Access Management
Project Limits:	S-591 (Enoch Road) to S-165 (Dunn Short Cut Road)
Project Length (miles):	3.22

TC31-3

Potential Project Type:	Capacity; Access Management
Project Limits:	S-165 (Dunn Short Cur Rd) to US 501 Business / S-133
Project Length (miles):	2.03

TC31-4

Potential Project Type:	Capacity; Access Management
Project Limits:	US 501 Business / S-133 to US 701
Project Length (miles):	1.04

Deficient Segment: TC-32 (US 501)
US 701 to US 17

This divided, 4-lane facility currently operates at LOS F, and is projected to operate at LOS F by 2030. In addition to the current congestion on this segment and the projected congestion in 2030, this corridor provides connection from I-95 to Myrtle Beach, a city whose economy is largely tourism-based.

In addition, there are several projects included in the MPO Long Range Transportation Plan, including:

Tier I projects:

- US 501 Corridor Study in Conway
- Widening Forestbrook Road to Conway

Tier II projects:

- US 501 Frontage Roads between Forestbrook Road and Conway
- Intersection improvement at US 501 and 9th Avenue
- Interchange improvements at US 501 and Carolina Forest
- Interchange improvements at US 501 and Factory Outlet
- Interchange improvements at US 501 and Singleton Ridge Road
- Interchange improvements at US 501 and Gardner Lacy Road
- Interchange improvements at US 501 and Coast Carolina

Identified Segment Issues:

- Rapid development throughout the area
- Present and Future Congestion

Potential Solutions:

The potential solutions identified to address the issues within this segment include a range of strategies including capacity enhancements; access management, such as restricted median openings, shared access points between parcels, and interparcel connections; and operational

improvements, such as dedicated turn lanes and intersection improvements. There is the potential for introducing tourism based local bus service, as well as commuter based services to serve local residents. Any transit option explored should also include the consideration of bicycle and pedestrian access.

TC32-1
Potential Project Type: Capacity; Access Management
Project Limits: US 701 (4th Avenue) to S-369 (Waccamaw Dr)
Project Length (miles): 1.49

TC32-2
Potential Project Type: Capacity; Access Management
Project Limits: S-639 (Waccamaw Dr) to SC 544
Project Length (miles): 1.49

TC32-3
Potential Project Type: Capacity
Project Limits: SC 544 to SC 31 (Carolina Bay Parkway)
Project Length (miles): 6.00

III. Trans Carolina Connectors

Connectors have been identified as routes that link the Trans-Carolina Corridor to major areas and interstate highways. Nine connectors have been identified for this corridor.

Connector C-1: SC 151/US 601
Connector C-1, located on SC 151/US 601, begins on SC 9 in the City of Pageland in Chesterfield County and ends at the North Carolina Line. This connector is 3.49 miles long. This facility provides the direct connection into the City of Charlotte, North Carolina.

Connector C-2: US 15
Connector C-2 travels along US 15 from SC 9 on the Trans-Carolina Corridor, near the City of Bennettsville, to the North Carolina state line. This rural connector is 11.4 miles long. This facility provides direct connection to Laurinburg, North Carolina and further on to Fayetteville, North Carolina.

Connector C-3: US 15/401
Connector C-3 follows US 15/401 from the Darlington County line to SC 9, on the Trans-Carolina Corridor, in Marlboro County. This connector is 10.12 miles long. This facility provides the beginning of the connection from the Trans-Carolina

corridor south towards the cities of Darlington and the regional hub, the City of Florence and the Interstate system.

Connector C-4: US 15
This facility follows US 15 through Darlington County from Lee County to the Marlboro County line. It passes through the City of Society Hill and ends at Connector C-3. This facility, combined with C-3, provides the connection from the Trans-Carolina corridor south towards the cities of Darlington and the regional hub, the City of Florence and the Interstate system.

Connector C-5: US 15
This facility follows US 15 from I-20 in Lee County to the beginning of Connector C-4 at the Darlington County line. This connector is 10.25 miles long and passes through the City of Bishopville. This facility, combined with connectors C-3 and C-4, complete the connection of the Trans-Carolina corridor to the Interstate system.

Connector C-6: US 76
This facility follows US 76 from US 501 on the Trans-Carolina Corridor in Marion County to the Florence County line. This connector is 12.5 miles long and passes through the City of Marion. This connector forms the beginning of the connection from the Trans-Carolina corridor to the regional hub of Florence and the Interstate system.

Connector C-7: US 76
Connector C-7 follows US 76 in Florence County beginning at the Marion County line and ends at the US 76 Connection to I-20. This connector is 15.15 miles long. This connector, when combined with C-6, completes the connection from the Trans-Carolina corridor to the regional hub of Florence and the Interstate system.

Connector C-8: SC 707
Connector C-8 follows SC 707 from the Georgetown County Line until SC 544. This connector is 9.09 miles long. This facility is provides the beginning of the connection from US 17 (Atlantic Coast corridor) to the Trans-Carolina corridor. It is a significant part of the local transportation system, as well as the regional system and is an important evacuation route.

Connector C-9: SC 544
C-9 follows SC 544 from SC 707 until US 501. This connector is 9.33 miles long. This facility, when combined with C-8, completes the connection from US 17 (Atlantic Coast Corridor) to the Trans-Carolina corridor. It is a significant part of the local transportation system, as well as the regional system and is an important evacuation route.

IV. Transit in the Trans Carolina Corridor

The Trans Carolina Corridor crosses four planning regions including Appalachian, Catawba, Pee Dee, and Waccamaw. The transit screening for the corridors is explained in more detail in those Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Appalachian	TC2-1	SC 9 (Boiling Springs Blvd)	0.20	Express Bus, Local Bus, Enhanced Bus/ITS
Appalachian	TC3 to TC10	SC 9	37.89	Local Bus
Pee Dee	TC19-1	SC 9 (MacGregor Street)	1.63	Local Bus
Pee Dee	TC30 to TC31	US 501	49.84	Local Bus, Express Bus, BRT
Waccamaw	TC32-1	US 501 (Hwy 501 East)	1.49	Local Bus, Express Bus, BRT
Waccamaw	TC32-2	US 501 (Hwy 501 East)	1.49	Local Bus, Express Bus, BRT
Waccamaw	TC32-3	US 501 (Hwy 501 East)	6.00	Local Bus, Express Bus, BRT

Strategic Corridor System Action Plan

UPSTATE CORRIDOR (17 SEGMENTS - 121 MILES)

I. Introduction

The Upstate Corridor travels from US 123 in Oconee County to US 29 in Cherokee County. The corridor traverses five (5) counties: Oconee, Pickens, Greenville, Spartanburg, and Cherokee Counties. Several other facilities overlap US 123 and US 29 along this corridor, including: SC 9, SC 38 and US 501 along this corridor, including: US 76, SC 28, US 76 Business, and SC 27. A map of the corridor is shown in Figure 1.

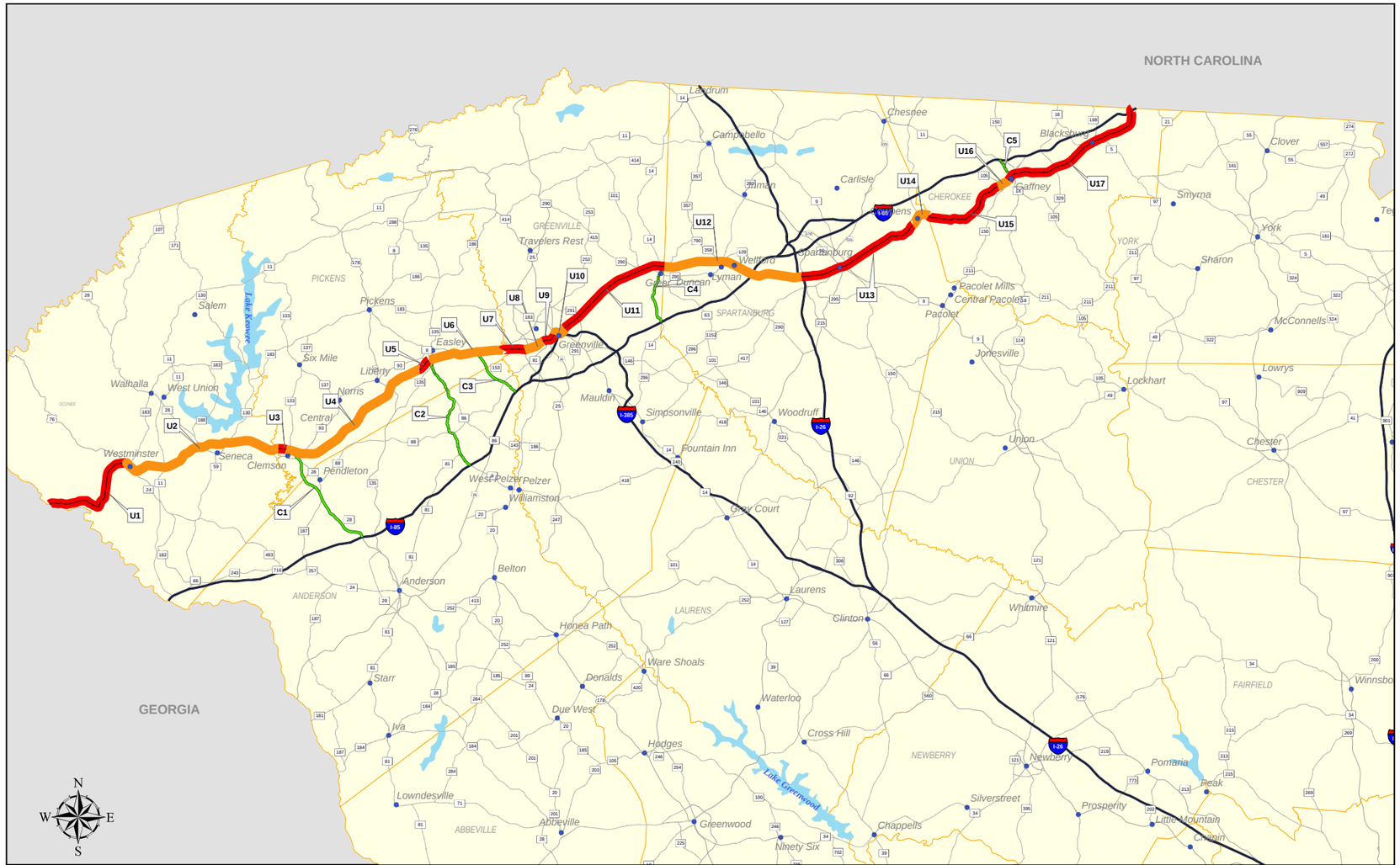
The Upstate corridor provides an alternative to I-85, which runs parallel to the corridor. US 123 was first constructed in the 1930s, while US 29 was first constructed in the 1920s. The corridor serves and connects the growing upstate region of South Carolina with the mountains of northeastern Georgia and southwestern North Carolina, directly serving the cities of Clemson, Easley, Greenville, Spartanburg, and Gaffney, as well as several smaller cities and towns.

Assuming recent trends continue, all of the counties along the Upstate Corridor are projected to experience moderate rates of population growth over the next several decades, further increasing personal and freight travel demands along this corridor through the year 2030.

II. Corridor Issues

The identification of issues within the corridor were identified by segment and were based on several criteria. The first two criteria included issues based on levels of congestion and safety. The segments identified included those that exceeded the LOS thresholds (LOS D or worse in rural segments; LOS E or worse in urban segments) and the safety thresholds (Crash rate greater than the system average crash rate). Other criteria used to identify issues were identified in the freight screening, the transit screening, and coordination with existing plans. Freight and local plan coordination are discussed in the segment by segment discussion of this corridor. Figure 2 illustrates the freight facilities, percentage of truck traffic and LOS along the Upstate Corridor.

Figure 1. Upstate Corridor



Strategic Corridor System

Segment	County	Route	From	To	Length (miles)
U-1	Oconee	US 123	GA State Line	US 76	10.37
U-2	Oconee	US 123	US 76	Pickens County	15.92
U-3	Pickens	US 123	Oconee County	Clemson City Limits	3.6
U-4	Pickens	US 123	Clemson City Limits	Easley City Limits	13.5
U-5	Pickens	US 123	Easley City Limits	SC 93	3.07
U-6	Pickens	US 123	SC 93	Greenville County	4.42
U-7	Greenville	US 123	Pickens County	US 25	2.39
U-8	Greenville	US 123	US 25	US 124	1.76
U-9	Greenville	US 123	US 124	US 29	2.13
U-10	Greenville	US 29	US 123	6 Lane	0.63
U-11	Greenville	US 29	6 Lane	Spartanburg County	11.34

Segment	County	Route	From	To	Length (miles)
U-12	Spartanburg	US 29	Greenville County	I-26	13.26
U-13	Spartanburg	US 29	I-26	Cowpens	12.53
U-14	Spartanburg	US 29	Cowpens	Cherokee County	1.68
U-15	Cherokee	US 29	Spartanburg County	4 Lanes	6.4
U-16	Cherokee	US 29	4 Lanes	Gaffney	2.8
U-17	Cherokee	US 29	Gaffney	NC State Lane	15.22
C-1	Anderson	US 76	US 123	I-85	11.22
C-2	Pickens/ Anderson	SC 8	US 123	I-85	11.99
C-3	Pickens/ Anderson	SC 153	US 123	I-85	5.61
C-4	Greenville	SC 14	US 29	I-85	5.77
C-5	Cherokee	SC 11	US 29	I-85	1.86

UPSTATE CORRIDOR
US 123 AND US 29

LEGEND
- SC City
- Interstate
- SC Highways
- US Highways
- County Boundary
- Lakes
- Segments
- Connectors

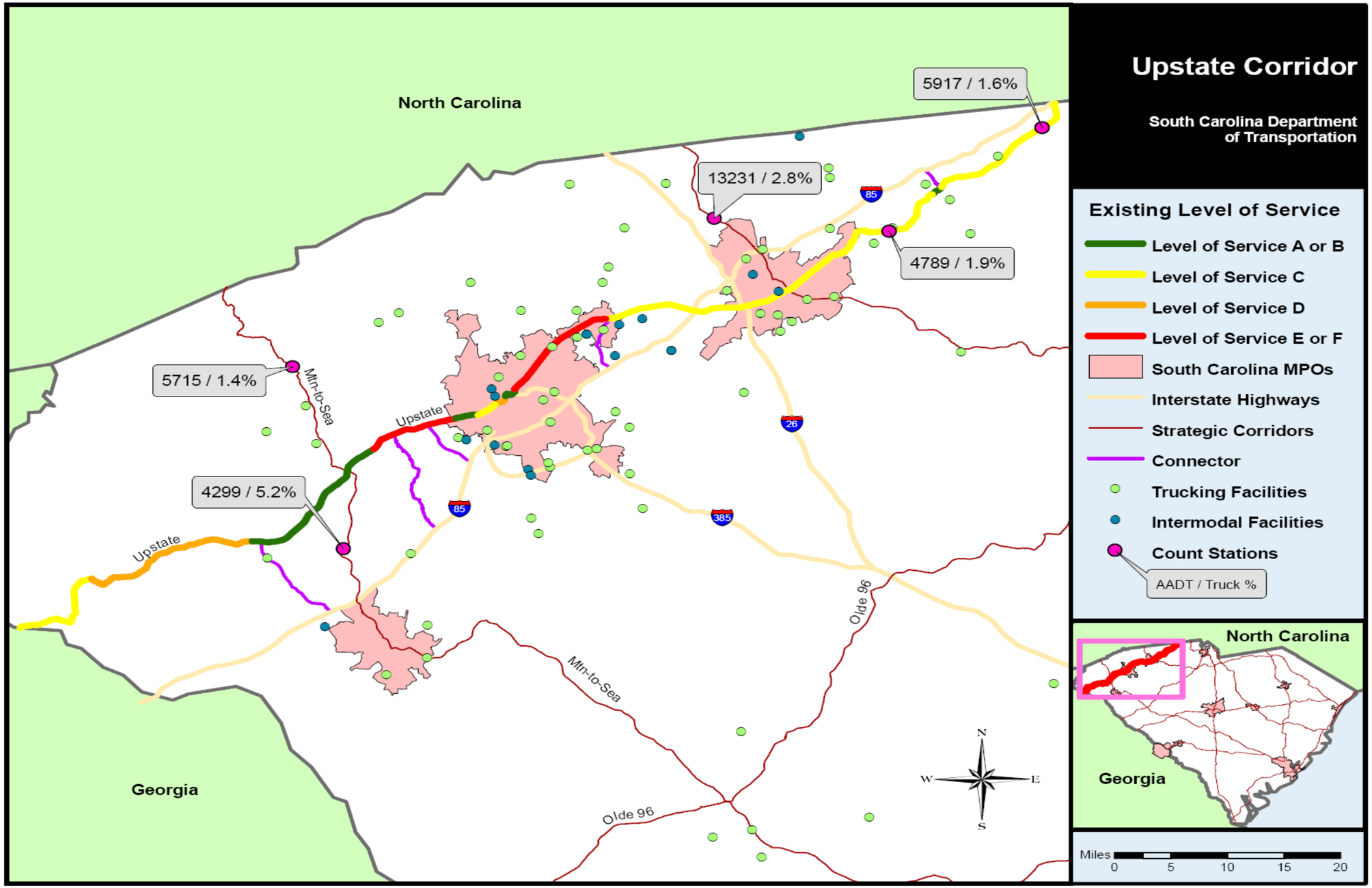
Planning SCDOT Environmental

TranSystems URS RS&H

0 5 10 20 Miles

Source: SCDOT GIS Data
This map is product of URS Corporation. Reasonable efforts have been made to ensure the accuracy of this map. URS Corporation expressly disclaims any responsibility or liability with regard to the use of this map, and promotes and recommends the independent verification of any data contained in this map by the user of this map product.

Figure 2. **Upstate Corridor Freight Characteristics**



The Upstate Corridor did not exhibit high truck volumes in any of its segments, and were actually very low fluctuating between one and two percent. This corridor basically parallels I-85 from Georgia to North Carolina and it is likely that the vast majority of trucks utilize the Interstate facility rather than this corridor. The primary issue for truck traffic utilizing this facility is the congested nature of the roadway and the number of cities and towns that the corridor traverses. Potential options to foster this facility as a freight reliever to I-85 could include the implementation of ITS and special use or managed lanes.

Deficient Segment: U-2 (US 123)
US 76 to Oconee/Pickens County Line

This four-lane divided facility is projected to operate at LOS F by 2030. Safety thresholds have not been exceeded within this segment. In addition to the projected congestion in 2030, the segment also provides a direct to Clemson University. Future expansions at the University could contribute to this future congestion, with increases in enrollment levels and number of visitors to the campus.

Identified Segment Issues:

- Future congestion
- Potential impact on historic districts

Potential Solutions:
Implement access management strategies, including a grass median and controlled access points. Additionally, install bicycle and pedestrian facilities to support multiple modes on transportation. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

U2-1

Potential Project Types:	Operational Improvement, access management
Project Limits:	US 76/US 123 Business/SC 28 to SC 30
Project Length (miles):	2.48

U2-2

Potential Project Types:	Operational Improvement, access management
Project Limits:	S-56 to Pickens Co. Line
Project Length (miles):	2.35

Deficient Segment: U3-1
S-348 to SC 133

This four-lane, divided facility is projected to operate at LOS D by 2030. While no fatalities have been recorded along this segment, the crash rate is higher than the strategic system average, suggesting that safety improvement may be required in this area.

Identified Segment Issues:

- Future congestion
- Higher than system average accident rate

Potential Solutions:

Implement access management strategies, including a grass median and controlled access points. Additionally, install bicycle and pedestrian facilities to support multiple modes on transportation. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

Potential Project Types:	Operational Improvement, access management
Project Limits:	S-348 to SC 133
Project Length (miles):	0.59

Deficient Segment: U5-1
SC 135 to SC 93/S-28

This four-lane, divided facility is projected to operate at LOS F by 2030. Safety thresholds have not been exceeded within this segment.

As this facility directly serves the City of Easley, future growth in the city will contribute to higher levels of traffic along this segment of the corridor.

Identified Segment Issues:

- Future congestion
- Limited right-of-way due to congested commercial development

Potential Solutions:

Implement access management strategies, including the construction of a boulevard configuration for much of this segment. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

Potential Project Types:	Operational Improvement, access management, reconstruction
Project Limits:	SC 135 to SC 93/S-28
Project Length (miles):	2.20

Deficient Segment: U6-1
SC 93/S-28 to SC 124

This four-lane, divided facility is projected to operate at LOS F by 2030. Safety thresholds have not been exceeded within this segment.

As this facility directly serves the City of Easley, future growth in the city will contribute to higher levels of traffic along this segment of the corridor.

Identified Segment Issues:

- Future congestion
- Limited right-of-way due to congested commercial development

Potential Solutions:

Capacity improvements, including widening to six lanes and the construction of a flyover for left turns to SC 124. Implement access management strategies, including a grass median and controlled access points. Additionally, install bicycle and pedestrian facilities to support multiple modes on transportation. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

Potential Project Types:	Capacity and Operational Improvements, widening to 6 lanes and access management
Project Limits:	SC 93/S-28 to SC 124
Project Length (miles):	3.55

Deficient Segment: U-11 (US 29)
6-Lanes (MP 7.42) to Greenville/Spartanburg County Line

This six-lane, divided facility is projected to operate at LOS F by 2030. The crash rate is higher than the strategic system average and two fatalities have been recorded along this segment in the past three years, suggesting that safety improvement may be required in this area.

This facility is a parallel facility to I-85 and has a lower percentage of truck traffic than would be typically found (<2.0%). The proximity to I-85, the existence of traffic signals, and slower speeds along US 29 makes I-85 a more attractive route for truck traffic.

Identified Segment Issues:

- Future congestion
- Higher than system average accident rate

Potential Solutions:

Implement access management strategies, including a grass median and controlled access points. Additionally, install bicycle and pedestrian facilities to support multiple modes on transportation. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

U11-1

Potential Project Types:	Operational Improvement, access management
Project Limits:	US 29 to SC 291
Project Length (miles):	1.73

U11-2

Potential Project Types:	Operational Improvement, access management
Project Limits:	SC 291 to S-38
Project Length (miles):	3.88

U11-3

Potential Project Types:	Operational Improvement, access management
Project Limits:	S-38 to S-109
Project Length (miles):	2.05

U11-4

Potential Project Types:	Operational Improvement, access management
Project Limits:	S-109 to Spartanburg County
Project Length (miles):	3.68

Deficient Segment: U-12 (US 29)
Greenville/Spartanburg County Line to I-26

This six-lane, divided facility is a continuation of US 29 from Greenville County and is projected to operate at LOS F by 2030. The crash rate is higher than the strategic system average and one fatality has been recorded along this segment in the past three years, suggesting that safety improvement may be required in this area. The following projects along this segment of the corridor were identified in the Spartanburg County Comprehensive Plan 1998 – 2015:

- US 29: Widen to six lanes with turn lanes and a grass median, from I-85 to Blackstock Road.

- East Side Parkway Corridor Study: This will investigate the feasibility of a new road from I-85 to I-26.

Identified Segment Issues:

- Future congestion
- Higher than system average accident rate

Potential Solutions:

Implement access management strategies, including a grass median and controlled access points. Additionally, install bicycle and pedestrian facilities to support multiple modes on transportation. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

U12-1

Potential Project Types:	Operational Improvement, access management
Project Limits:	Greenville Co. to SC 357
Project Length (miles):	0.43

U12-2

Potential Project Types:	Operational Improvement, access management
Project Limits:	S-2653 (Reeves St.) to I-26
Project Length (miles):	2.19

Deficient Segment: U-13 (US 29)
I-26 to US 29/SC 296 Connection

This four-lane, divided facility is projected to operate at LOS F by 2030. The crash rate is higher than the strategic system average and one fatality has been recorded along this segment in the past three years, suggesting that safety improvement may be required in this area.

Identified Segment Issues:

- Future congestion
- Higher than system average accident rate

Potential Solutions:

Implement access management strategies, including a grass median and controlled access points. Because of the potential for commuter based transit service, any capacity enhancement should consider the potential for dedicated or managed lanes, special use lanes, such as truck only or High Occupancy Vehicle lanes; and coordination with existing local transit services. Any transit option explored should also include the consideration of bicycle and pedestrian access.

Potential Project Types:	Operational Improvement, access management
Project Limits:	I-26 to US 29/SC 296 Connection
Project Length (miles):	3.20

Deficient Segment: U-17 (US 29)
2 Lanes (MP 9.20) to North Carolina State Line

This two-lane facility is projected to operate at LOS D and E by 2030. The crash rate along this segment (240.56) does not exceed the average for the strategic network (267.10).

Identified Segment Issues:

- Future congestion
- Potential conflict with cultural resources

Potential Solutions:

Utilizing the traffic analysis process, these segments are currently operating at a congested level and are projected to continue with increased congestion by 2030. However, the LOS in these segments barely meets the minimum congestion thresholds. The area is primarily rural with very little development and is not anticipated to experience a large amount of growth in the future. Based on these conditions, no projects to address congestion were identified for these segments.

III. Upstate Connectors

Connectors have been identified as routes that link the Upstate Corridor to major activity centers and intermodal facilities, are designated evacuation routes or provide links to the Interstate system. Five (5) connectors have been identified for this corridor.

Connector C-1: US 76

This four-lane divided facility runs 11.22.miles from the Clemson University community to I-85. This is the most direct access for the Clemson residents and businesses to the interstate. This connector also provides direct access to the Anderson community, which is an established link with Clemson through the regional transit service.

Connector C-2: SC 8

This two-lane undivided and divided facility runs 11.99 miles from the City of Easley to I-85. The lack of interstate access in Pickens County makes this access to I-85 even more important. Traffic volumes along this connector vary, however, they are expected to increase dramatically by 2030 due to the continued population growth in the Upstate region.

Connector C-3: SC 153

This connector is a two-lane facility for the first 1.5 miles, in Pickens County, but it widens to a four-lane facility through Anderson County. This facility runs 5.61 miles from the intersection with US 123, just outside the City of Easley, to I-85 in Anderson County. The facility runs through the Powdersville unincorporated community. This area of Anderson County has experienced tremendous growth in residential and commercial land uses.

Connector C-4: SC 14

This facility begins at the intersection with US 29 and runs 5.77 miles to I-85. This facility ranges from two lanes at US 29 to six lanes at I-85. The southern portion of this connector was widened to six lanes through the 27-in-7 program with SCDOT. The northern portion of the connector runs through the historic downtown area of the City of Greer.

Connector C-5: SC 11

This four-lane connector is 1.86 miles long. This facility runs from the corridor to I-85 in Cherokee County. This facility provides direct access to the interstate from the US 29 corridor. The increasing number of truck and distribution centers in this area benefit from the direct access to the interstate.

IV. Transit in the Upstate Corridor

The Upstate Corridor is contained entirely within the Appalachian planning region. The transit screening for the corridors is explained in more detail in those Regional Transit Plans. The results for this corridor are shown in Table 1.

Table 1. Potential Transit Applications

SC Region	Segment	Route	Length	Potential Transit Option(s)
Appalachian	U2-1	SC 9 (Boiling Springs Blvd)	0.20	Express Bus, Local Bus, Enhanced Bus/ITS
Appalachian	U5-1	US 76 (Bypass 123)	2.48	Express Bus, Local Bus, Enhanced Bus/ITS
Appalachian	U6-1	US 123 (Calhoun Memorial Hwy)	2.20	Local Bus, Express Bus, BRT
Appalachian	U11-1	US 29 (Wade Hampton Blvd)	3.55	Local Bus, Express Bus, BRT
Appalachian	U11-2	US 29 (Wade Hampton Blvd)	1.73	Commuter Rail, Local Bus, BRT
Appalachian	U11-3	US 29 (Wade Hampton Blvd)	3.88	Commuter Rail, Local Bus, BRT
Appalachian	U11-4	US 29 (Wade Hampton Blvd)	2.05	Commuter Rail, Local Bus, BRT
Appalachian	U12-1	US 29 (Wade Hampton Blvd)	3.68	Commuter Rail, Local Bus, BRT
Appalachian	U12-2	US 29 (Warren E. Abernathy Hwy)	0.43	Commuter Rail, Local Bus, BRT
Appalachian	U13-1	US 29 (Wo Ezell Blvd)	2.19	Commuter Rail, Local Bus, BRT
Appalachian	U3 to U13	US 178/US 76/US 25	3.20	Commuter Rail, Local Bus, BRT